

# MODEL G0664 HEAVY DUTY METAL CUTTING BANDSAW w/ROLLERS

**OWNER'S MANUAL** 



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#JB10466 PRINTED IN TAIWAN



This manual provides critical safety instructions on the proper setup, operation, maintenance and service of this machine/equipment.

Failure to read, understand and follow the instructions given in this manual may result in serious personal injury, including amputation, electrocution or death.

The owner of this machine/equipment is solely responsible for its safe use. This responsibility includes but is not limited to proper installation in a safe environment, personnel training and usage authorization, proper inspection and maintenance, manual availability and comprehension, application of safety devices, blade/cutter integrity, and the usage of personal protective equipment.

The manufacturer will not be held liable for injury or property damage from negligence, improper training, machine modifications or misuse.

### **WARNING!**

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- Lead from lead-based paints.
- Crystalline silica from bricks, cement and other masonry products.
- Arsenic and chromium from chemically-treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: Work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

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### INTRODUCTION

### **Foreword**

We are proud to offer the Model G0664 Heavy Duty Metal Cutting Bandsaw w/Rollers. This machine is part of a growing Grizzly family of fine metalworking machinery. When used according to the guidelines set forth in this manual, you can expect years of trouble-free, enjoyable operation and proof of Grizzly's commitment to customer satisfaction.

The specifications, drawings, and photographs illustrated in this manual represent the Model G0664 when the manual was prepared. However, owing to Grizzly's policy of continuous improvement, changes may be made at any time with no obligation on the part of Grizzly. For your convenience, we always keep current Grizzly manuals available on our website at www.grizzly.com. Any updates to your machine will be reflected in these manuals as soon as they are complete. Visit our site often to check for the latest updates to this manual!

### **Contact Info**

We stand behind our machines. If you have any service questions, parts requests or general questions about the machine, please call or write us at the location listed below.

Grizzly Industrial, Inc.
1203 Lycoming Mall Circle
Muncy, PA 17756
Phone: (570) 546-9663
Fax: (800) 438-5901
E-Mail: techsupport@grizzly.com

If you have any comments regarding this manual, please write to us at the address below:

Grizzly Industrial, Inc.

c/o Technical Documentation Manager
P.O. Box 2069
Bellingham, WA 98227-2069
Email: manuals@grizzly.com

### **Functional Overview**

A horizontal metal cutting bandsaw is used to make straight cuts in metal workpieces.

The Model G0664 Heavy Duty Metal Cutting Bandsaw with Rollers features a 2½ HP motor, hydraulic upfeed and downfeed, a vise with hydraulic clamping, two blade speeds, variable speed downfeed, cutting angles from -45° to 60°, a blade coolant system, infeed and outfeed roller tables, and laser light cut alignment.

To make cuts, the operator first adjusts the blade to the desired cutting angle, then raises the blade and opens the vise. A workpiece is placed onto the table and the vise is manually closed to within 1/4" of the workpiece. The vise close button is pressed to hydraulically clamp the workpiece into the vise. If needed for the operation, the blade coolant pump is started and the blade is turned on. The blade is hydraulically lowered into the workpiece by pressing the blade down button. The feed speed is adjusted with the feed speed knob on the control panel.

When the cut is complete, the blade automatically stops and returns to the top of its travel. The workpiece is released from the vise by pressing the vise open button.

Long workpieces can be supported by the infeed and outfeed roller tables.



### Identification

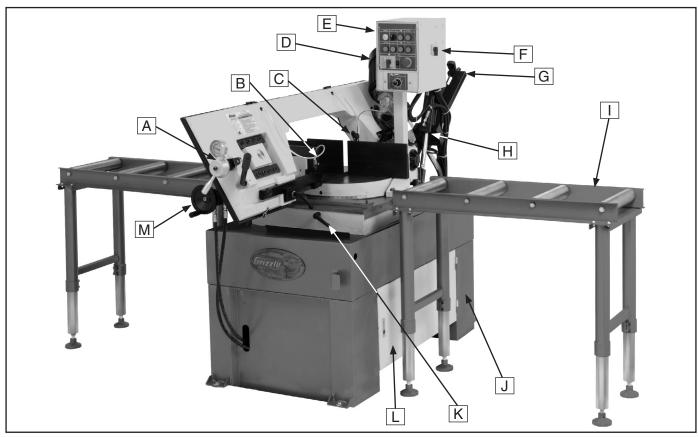


Figure 2. G0664 Machine Identification.

- A. Blade Tension Handwheel
- B. Cutting Fluid Flow Valve
- C. Cut Alignment Laser
- **D.** Bandsaw Motor
- E. Control Panel
- F. Machine ON/OFF Switch
- G. Feed Pressure Adjust Spring
- H. Saw Control Ram
- I. Infeed/Outfeed Tables
- J. Main Support Cabinet
- K. Headstock Swivel Lock Lever
- L. Cabinet
- M. Vise Handwheel





### MACHINE DATA SHEET

Customer Service #: (570) 546-9663 • To Order Call: (800) 523-4777 • Fax #: (800) 438-5901

### MODEL G0664 HEAVY DUTY METAL CUTTING BANDSAW

| Product Dimensions:       |   |
|---------------------------|---|
| Net Weight                |   |
| Length/Width/Height       |   |
| Foot Print (Length/Width) |   |
|                           |   |
| Shipping Dimensions:      |   |
| Type                      |   |
| Content                   |   |
| Weight                    |   |
| Length/Width/Height       | 86" x 32½" x 45" (1 of 2), 82" x 38" x 15" (2 of 2) |
| Electrical:               |   |
| Switch                    | Control Box on Swing Base                           |
| Switch Voltage            | 220V  |
| Cord Length               | 6 ft.   |
| Cord Gauge                | 9 9   |
| Recommended Circuit Size  | •   |
| Included Plug             |   |
| Recommended Plug          | 15-15   |
| Motors:                   |   |
| Main                      |   |
| Туре                      | TEFC Induction                                      |
| Horsepower                | 2.5 HP  |
| Voltage                   | 220V  |
| Prewired                  | 220V  |
| Phase                     | Three   |
| Amps                      |   |
| Speed                     | 3450/1725 RPM                                       |
| Cycle                     |   |
| Number Of Speeds          |   |
| Power Transfer            |   |
| Bearings                  | Shielded and Lubricated                             |
| Hydraulic Motor           |   |
| Туре                      |   |
| Horsepower                |   |
| Voltage                   |   |
| Prewired                  |   |
| Phase                     |   |
| Amps                      |   |
| Speed                     |   |
| Cycle                     | 60 Hz   |



|         | Type                          | TEFC Inducti                |
|---------|-------------------------------|-----------------------------|
|         | Power                         | 53                          |
|         | Voltage                       |                             |
|         | Amps                          |                             |
|         | Speed                         |                             |
|         | Cycle                         | 60                          |
| in Spec | cifications:                  |                             |
| Ope     | eration Information           |                             |
|         | Blade Speed                   | 160, 320 FF                 |
|         | Standard Blade Size           | 1½16" x 130 <sup>11</sup>   |
|         | Miter Angle                   | Right 45°, Left 6           |
| Cut     | ting Capacities               |                             |
|         | Angle Cuts                    | Right 45°, Left 6           |
|         | Vise Jaw Depth                |                             |
|         | Vise Jaw Height               | 6                           |
|         | 90° Round Max. Capacity       | 11                          |
|         | 90° Square Max. Capacity      | 10" x 1                     |
|         | 90° Rectangular Max. Capacity | 13" x                       |
|         | 45° Round Max. Capacity       | 1                           |
|         | 45° Square Max. Capacity      | 9" x                        |
|         | 45° Rectangular Max. Capacity | 7½" x 1                     |
|         | 30° Round Max. Capacity       |                             |
|         | 30° Square Max. Capacity      | 6½" x 6                     |
|         | 30° Rectangular Max. Capacity | 6½" x 6                     |
| Con     | estruction                    |                             |
|         | Table Construction            | Cast Ir                     |
|         | Wheel Construction Upper      | Cast Ir                     |
|         | Wheel Construction Lower      |                             |
|         | Body Construction             | Cast Ir                     |
|         | Base Construction             |                             |
|         | Stand Construction            | Formed Sto                  |
|         | Wheel Cover Construction      | Pre-Formed Sto              |
|         | Paint                         | Powder Coat                 |
| Oth     | er                            |                             |
|         | Blade Guides Upper and Lower  | Tungsten Carbide Tipped Gui |
|         | Coolant Capacity              |                             |
| er Spe  | ecifications:                 |                             |
| _       | Intry Of Origin               | Таім                        |
|         | ranty                         |                             |
|         | al Number Leastion            | Crizzly ID Lo               |

#### Features:

Two Speeds
Adjustable Hydraulic Downfeed and Quick Lift System
Automatic Shut-off
Blade Tension Indicator
Adjusting Spring For Smooth Downfeed
Control Panel
39"L x 18"W Front & Rear Roller Tables
Laser Guide



### **SECTION 1: SAFETY**

### **AWARNING**

### For Your Own Safety, Read Instruction **Manual Before Operating this Machine**

The purpose of safety symbols is to attract your attention to possible hazardous conditions. This manual uses a series of symbols and signal words intended to convey the level of importance of the safety messages. The progression of symbols is described below. Remember that safety messages by themselves do not eliminate danger and are not a substitute for proper accident prevention measures.



Indicates an imminently hazardous situation which, if not avoided, WILL result in death or serious injury.

**AWARNING** Indicates a potentially hazardous situation which, if not avoided, COULD result in death or serious injury.

**▲**CAUTION

Indicates a potentially hazardous situation which, if not avoided, MAY result in minor or moderate injury. It may also be used to alert against unsafe practices.

NOTICE

This symbol is used to alert the user to useful information about proper operation of the machine.

### WARNING **Safety Instructions for Machinery**

- 1. READ THE ENTIRE MANUAL BEFORE **STARTING MACHINERY.** Machinery presents serious injury hazards to untrained users.
- 2. ALWAYS USE ANSI APPROVED SAFETY GLASSES WHEN OPERATING MACHINERY. Everyday eyeglasses only have impact resistant lenses—they are NOT safety glasses.
- 3. ALWAYS WEAR A NIOSH APPROVED RESPIRATOR WHEN **OPERATING** MACHINERY THAT PRODUCES DUST. Most types of dust (wood, metal, etc.) can cause severe respiratory illnesses.

- 4. ALWAYS USE HEARING PROTECTION WHEN OPERATING MACHINERY. Machinery noise can cause permanent hearing loss.
- 5. WEAR PROPER APPAREL. DO NOT wear loose clothing, gloves, neckties, rings, or jewelry that can catch in moving parts. Wear protective hair covering to contain long hair and wear non-slip footwear.
- 6. NEVER OPERATE MACHINERY WHEN TIRED OR UNDER THE INFLUENCE OF DRUGS OR ALCOHOL. Be mentally alert at all times when running machinery.



## **A**WARNING Safety Instructions for Machinery

- ONLY ALLOW TRAINED AND PROP-ERLY SUPERVISED PERSONNEL TO OPERATE MACHINERY. Make sure operation instructions are safe and clearly understood.
- KEEP CHILDREN AND VISITORS AWAY.
   Keep all children and visitors a safe distance from the work area.
- **9. MAKE WORKSHOP CHILDPROOF.** Use padlocks, master switches, and remove start switch keys.
- 10. NEVER LEAVE WHEN MACHINE IS RUNNING. Turn power OFF and allow all moving parts to come to a complete stop before leaving machine unattended.
- **11. DO NOT USE IN DANGEROUS ENVIRONMENTS.** DO NOT use machinery in damp, wet locations, or where any flammable or noxious fumes may exist.
- 12. KEEP WORK AREA CLEAN AND WELL LIGHTED. Clutter and dark shadows may cause accidents.
- 13. USE A GROUNDED EXTENSION CORD RATED FOR THE MACHINE AMPERAGE.
  Grounded cords minimize shock hazards.
  Undersized cords create excessive heat.
  Always replace damaged extension cords.
- 14. ALWAYS DISCONNECT FROM POWER SOURCE BEFORE SERVICING MACHINERY. Make sure switch is in OFF position before reconnecting.
- **15. MAINTAIN MACHINERY WITH CARE.** Keep blades sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
- 16. MAKE SURE GUARDS ARE IN PLACE AND WORK CORRECTLY BEFORE USING MACHINERY.

- 17. REMOVE ADJUSTING KEYS AND WRENCHES. Make a habit of checking for keys and adjusting wrenches before turning machinery *ON*.
- 18. CHECK FOR DAMAGED PARTS BEFORE USING MACHINERY. Check for binding or misaligned parts, broken parts, loose bolts, and any other conditions that may impair machine operation. Repair or replace damaged parts before operation.
- **19. USE RECOMMENDED ACCESSORIES.**Refer to the instruction manual for recommended accessories. Improper accessories increase risk of injury.
- **20. DO NOT FORCE MACHINERY.** Work at the speed for which the machine or accessory was designed.
- **21. SECURE WORKPIECE.** Use clamps or a vise to hold the workpiece when practical. A secured workpiece protects your hands and frees both hands to operate the machine.
- **22. DO NOT OVERREACH.** Maintain stability and balance at all times.
- 23. MANY MACHINES CAN EJECT WORKPIECES TOWARD OPERATOR. Know and avoid conditions that cause the workpiece to "kickback."
- 24. ALWAYS LOCK MOBILE BASES (IF USED) BEFORE OPERATING MACHINERY.
- 25. CERTAIN DUST MAY BE HAZARDOUS to the respiratory systems of people and animals, especially fine dust. Be aware of the type of dust you are exposed to and always wear a respirator designed to filter that type of dust.



### **AWARNING**

### **Additional Safety Instructions for Bandsaws**

- BLADE CONDITION. Do not operate with dull, cracked or badly worn blade. Inspect blades for cracks and missing teeth before each use.
- HAND PLACEMENT. Never position fingers or thumbs in line with the cut. Hands could be crushed in vise or by falling machine components, or cut by the blade.
- ENTANGLEMENT HAZARDS. Do not operate this bandsaw without blade guard in place. Otherwise, loose clothing, jewelry, long hair and work gloves can be drawn into working parts.
- **4. BLADE REPLACEMENT.** When replacing blades, make sure teeth face toward the workpiece. Wear gloves to protect hands and safety glasses to protect eyes.
- 5. WORKPIECE HANDLING. Always support the workpiece with table, vise, or other support fixture. Flag long pieces to avoid a tripping hazard. Never hold the workpiece with your hands during a cut.
- 6. LOSS OF STABILITY. Unsupported workpieces may jeopardize machine stability and cause the machine to tip and fall, which could cause serious injury.
- POWER INTERRUPTION. Unplug machine after power interruption. Machines without magnetic switches can start up after power is restored.

- 8. FIRE HAZARD. Use EXTREME CAUTION if cutting magnesium. Using the wrong cutting fluid will lead to chip fire and possible explosion.
- 9. CUTTING FLUID SAFETY. Always follow manufacturer's cutting fluid safety instructions. Pay particular attention to contact, contamination, inhalation, storage and disposal warnings. Spilled cutting fluid creates a slipping and toxicity hazard.
- 10. ATTENTION TO WORK AREA. Never leave a machine running and unattended. Pay attention to the actions of others in the area to avoid unintended accidents.
- 11. MAINTENANCE/SERVICE. All inspections, adjustments, and maintenance are to be done with the machine *OFF* and the power disconnected to the machine. Wait for all moving parts to come to a complete stop.
- 12. HEARING PROTECTION & HAZARDS. Noise generated by blade and workpiece vibration, material handling, and power transmission can cause permanent hearing loss over time and interfere with communication and audible signals. Always wear hearing protection.
- **13. HOT SURFACES.** Due to friction, the workpiece, chips, and some machine components can be hot enough to burn you.

### WARNING

Like all machinery there is potential danger when operating this machine. Accidents are frequently caused by lack of familiarity or failure to pay attention. Use this machine with respect and caution to decrease the risk of operator injury. If normal safety precautions are overlooked or ignored, serious personal injury may occur.



No list of safety guidelines can be complete. Every shop environment is different. Always consider safety first, as it applies to your individual working conditions. Use this and other machinery with caution and respect. Failure to do so could result in serious personal injury, damage to equipment, or poor work results.



### **SECTION 2: CIRCUIT REQUIREMENTS**

### 220V Operation

### WARNING

Serious personal injury could occur if you connect the machine to power before completing the setup process. DO NOT connect the machine to the power until instructed later in this manual.



### **AWARNING**

Electrocution or fire could result if machine is not grounded and installed in compliance with electrical codes. Compliance MUST be verified by a qualified electrician!

#### **Full Load Amperage Draw**

This machine draws the following amps under maximum load:

Amp Draw......10 Amps

#### **Power Supply Circuit Requirements**

You MUST connect your machine to a grounded circuit that is rated for the amperage given below. Never replace a circuit breaker on an existing circuit with one of higher amperage without consulting a qualified electrician to ensure compliance with wiring codes. If you are unsure about the wiring codes in your area or you plan to connect your machine to a shared circuit, consult a qualified electrician.

Minimum Circuit Size...... 15 Amps

#### **Power Connection Device**

The type of plug required to connect your machine to power depends on the type of service you currently have or plan to install. We recommend using the plug shown in **Figure 3**.

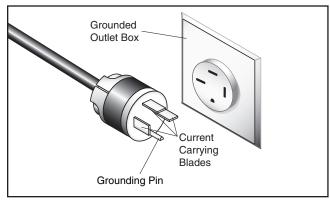


Figure 3. NEMA 15-15 plug and outlet.

#### **Extension Cords**

Using extension cords may reduce the life of the motor. Instead, place the machine near a power source. If you must use an extension cord:

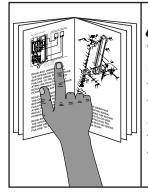
- Use at least a 14 gauge cord that does not exceed 50 feet in length!
- The extension cord must also have a ground wire and plug pin.
- A qualified electrician MUST size cords over 50 feet long to prevent motor damage.



### **SECTION 3: SETUP**

Dagawindian

### **Setup Safety**



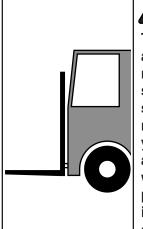
### **AWARNING**

This machine presents serious injury hazards to untrained users. Read through this entire manual to become familiar with the controls and operations before starting the machine!



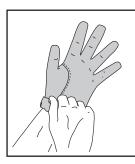
### WARNING

Wear safety glasses during the entire setup process!



### WARNING

The Model G0664 is an extremely heavy machine. Serious personal injury may occur if safe moving methods are not followed. To be safe, you will need assistance and power equipment when moving the shipping crate and removing the machine from the crate.



### **A**CAUTION

CUTTING HAZARD!
Blades are sharp! Put
on heavy leather gloves
when handling a blade
or making adjustments
near a blade or cutter!

## Items Needed for Setup

The following items are needed to complete the setup process, but are not included with your machine:

O4- -

| De | escription Qty                           |
|----|--|
| •  | Assistant1                               |
| •  | Safety Glasses (for each person)1 Pair   |
| •  | Mounting Hardware (optional) As Needed   |
| •  | Power Lifting Equipment                  |
|    | (Rated for at least 1200 lbs.) 1         |
| •  | Lifting Straps and Hooks                 |
|    | (Rated for at least 1200 lbs.) As Needed |

### **Unpacking**

The Model G0664 was carefully packed when it left our warehouse. If you discover the machine is damaged after you have signed for delivery, please immediately call Customer Service at (570) 546-9663 for advise.

Save the containers and all packing materials for possible inspection by the carrier or its agent. Otherwise, filing a freight claim can be difficult.

When you are completely satisfied with the condition of your shipment, you should inventory the contents.



### **Inventory**

The following is a description of the main components shipped with your machine. Lay the components out to inventory them.

**Note:** If you can't find an item on this list, check the mounting location on the machine or examine the packaging materials carefully. Occasionally we pre-install certain components for shipping purposes.

| Mad | chine Inventory: (Figure 4)           | Qty |
|-----|---------------------------------------|-----|
| Α.  | Bandsaw (not shown)                   | 1   |
| B.  | Coolant Catch Tray                    | 1   |
| C.  | Work Stop Rod                         |     |
| D.  | Work Stop                             |     |
| E.  | Hex Bolts M16-2 x 50 (leveling feet)  |     |
| F.  | Hex Nuts M16-2 (leveling feet)        |     |
| Rol | ler Table Inventory: (Figure 5)       | Qty |
| G.  | Coolant Reservoir Cover               | 1   |
| H.  | Roller Tables                         | 2   |
| I.  | Lower Legs                            | 8   |
| J.  | Leg Assemblies                        | 4   |
| K.  | Foot Assemblies                       |     |
| L.  | Hex Nuts M8-1.25                      | 16  |
| Μ.  | Flat Washers 8mm                      | 16  |
| N.  | Hex Bolts M8-1.25 x 16                | 16  |
| Ο.  | Button Head Cap Screws M6-1 x 10      |     |
|     | (Coolant Reservoir Cover)(Not Shown). | 4   |

If any nonproprietary parts are missing (e.g. a nut or a washer), we will gladly replace them; or for the sake of expediency, replacements can be obtained at your local hardware store.



### **AWARNING**

SUFFOCATION HAZARD! Immediately discard all plastic bags and packing materials to eliminate choking/suffocation hazards for children and animals.

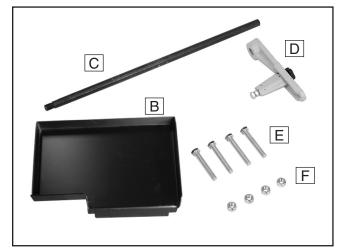
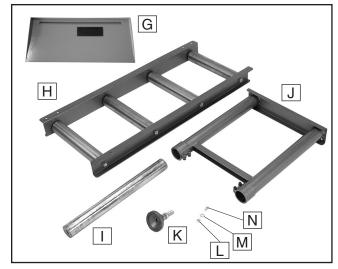


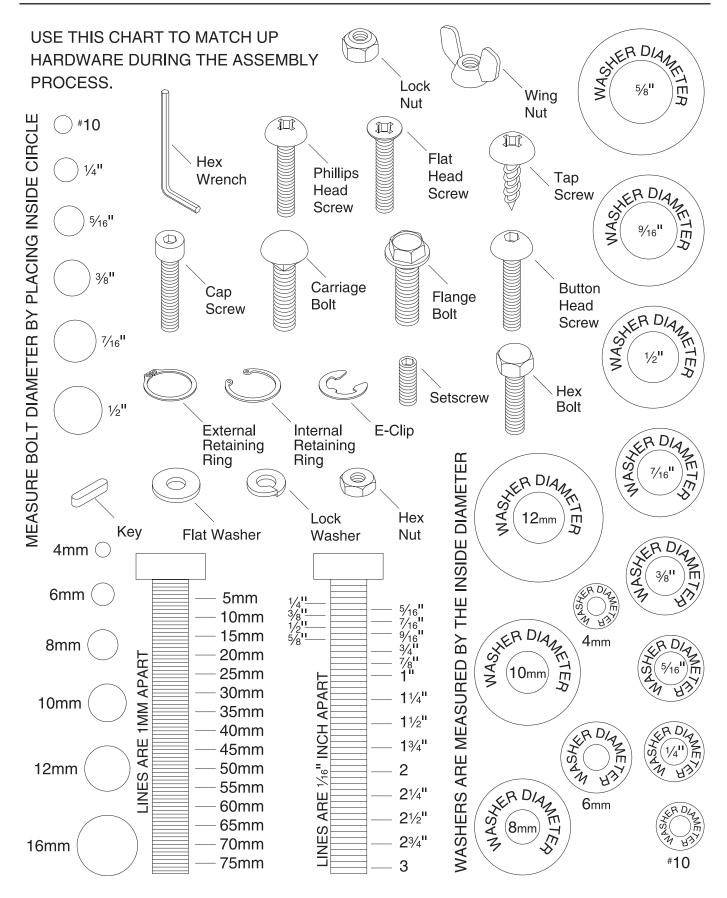
Figure 4. Inventory.



**Figure 5.** Roller table inventory.



### **Hardware Recognition Chart**



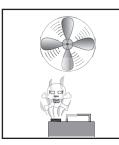
### Clean Up

The unpainted surfaces are coated with a waxy oil to prevent corrosion during shipment. Remove this protective coating with a solvent cleaner or degreaser, such as shown in **Figure 6**. For thorough cleaning, some parts must be removed. **For optimum performance, clean all moving parts or sliding contact surfaces.** Avoid chlorine-based solvents, such as acetone or brake parts cleaner that may damage painted surfaces. Always follow the manufacturer's instructions when using any type of cleaning product.



### WARNING

Gasoline and petroleum products have low flash points and can explode or cause fire if used to clean machinery. DO NOT use these products to clean the machinery.



### **A**CAUTION

Many cleaning solvents are toxic if inhaled. Minimize your risk by only using these products in a well ventilated area.

#### G2544—Solvent Cleaner & Degreaser

A great product for removing the waxy shipping grease from your machine during clean up.



**Figure 6.** Cleaner/degreaser available from Grizzly.

### **Site Considerations**

#### Floor Load

Refer to the **Machine Data Sheet** for the weight and footprint specifications of your machine. Some residential floors may require additional reinforcement to support both the machine and operator.

#### **Placement Location**

Consider existing and anticipated needs, size of material to be processed through each machine, and space for auxiliary stands, work tables or other machinery when establishing a location for your new machine. See **Figure 7** for the minimum working clearances.

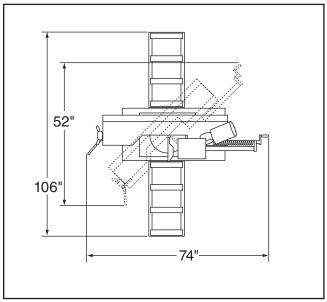
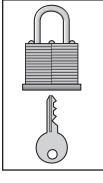


Figure 7. Minimum working clearances.



### **A**CAUTION

Children and visitors may be seriously injured if unsupervised around this machine. Lock entrances to the shop or disable start switch or power connection to prevent unsupervised use.



### **Moving & Placing**

The base of the Model G0664 contains four lifting points to allow the machine to be moved into position.

#### To move the machine:

- 1. Remove the four lag screws that mount the machine to the pallet at the base of the shipping crate.
- 2. Insert round steel bars through the lifting holes and attach lifting hooks and straps to the bars as shown in **Figure 8**.

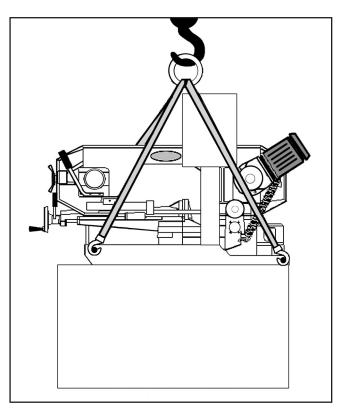
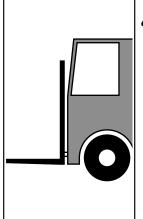


Figure 8. G0664 lifting points.



### WARNING

The Model G0664 is a heavy machine. Serious personal injury may occur if safe moving methods are not used. To be safe, get assistance and use power equipment to move the shipping crate and remove the machine from the crate.

- Lift the machine just high enough to clear the pallet, then move it to its final location. Have an assistant stabilize the machine while moving.
  - —If you plan to use the leveling feet rather than mounting the machine to the floor, set the machine on blocks at least 4" above the ground before putting it in the final location, then proceed to Leveling Feet on Page 18.
- **4.** Re-install the coolant reservoir cover/catch tray.



## Mounting to Shop Floor

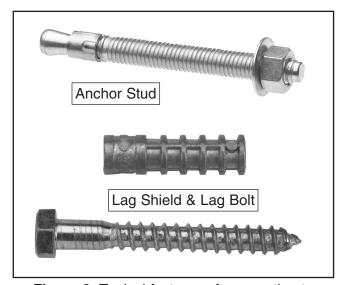
Although not required, we recommend that you mount your new machine to the floor. Because this is an optional step and floor materials may vary, floor mounting hardware is not included. Generally, you can either bolt your machine to the floor or mount it on machine mounts. Both options are described below. Whichever option you choose, it is necessary to level your machine with a precision level.

#### **Bolting to Concrete Floors**

Lag shield anchors with lag bolts and anchor studs (**Figure 9**) are two popular methods for anchoring an object to a concrete floor. We suggest you research the many options and methods for mounting your machine and choose the best that fits your specific application.

### **NOTICE**

Anchor studs are stronger and more permanent alternatives to lag shield anchors; however, they will stick out of the floor, which may cause a tripping hazard if you decide to move your machine.



**Figure 9**. Typical fasteners for mounting to concrete floors.

#### **Using Machine Mounts**

Using machine mounts, shown in **Figure 10**, gives the advantage of fast leveling and vibration reduction. The large size of the foot pads distributes the weight of the machine to reduce strain on the floor.



Figure 10. Machine mount example.

### **NOTICE**

We strongly recommend securing your machine to the floor if it is hardwired to the power source to avoid conduit damage from accidental machine movement. Consult with your electrician to ensure compliance with local codes.



### **Leveling Feet**

Each corner of the Model G0664 base has a foot with a threaded hole that can be used to level the machine.

#### To install the leveling feet:

- 1. Place the machine on blocks at least 4" above the ground so that each threaded hole can be accessed from underneath.
- Insert one M16-2 x 50 hex bolt with an M16-2 hex nut into each of the feet, as shown in Figure 11.

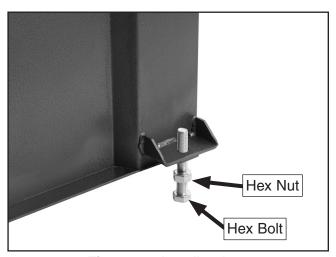


Figure 11. Leveling feet.

- **3.** Lift the machine, remove the blocks, then place the machine into its final location.
- 4. Proceed to Leveling Machine.

### **Machine Leveling**

Whether you mount the machine to the shop floor, use machine mounts, or use the leveling feet, the Model G0664 must be leveled before use.

#### To level the machine:

- 1. Using a level placed on the vise table as a guide, level the machine by adjusting one side up or down as needed, using shims, machine mounts, or the leveling feet. Be sure to adjust each side in small, equal increments as one adjustment also affects the other side.
- 2. Once the machine is level in one direction, rotate the level 90° and check again for level.
- **3.** Again adjust the machine as needed. Be sure to use small, equal increments on each side.
- Re-check for level in both the left-to-right and front-to-rear directions. Re-adjust if necessary.
- **5.** Once the machine is level, secure the mounting hardware as necessary, depending on the mounting method you have chosen.



## Roller Table Assembly

The Model G0664 comes with two auxiliary roller tables to support long workpieces during operation.

#### To assemble the roller tables:

Insert one lower leg into the upper leg assembly, as shown in Figure 12. Tighten one of the cap screws to temporarily hold the leg in place. Repeat for the other seven legs.

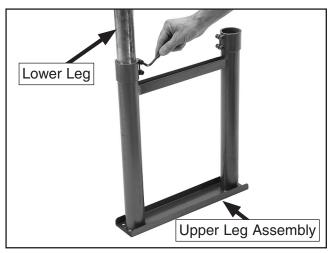


Figure 12. Lower leg attachment.

Thread one foot assembly into one of the lower legs, as shown in Figure 13. Repeat for the other seven feet.

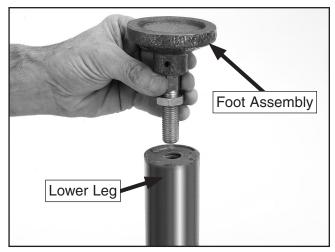


Figure 13. Foot attachment.

3. Attach a leg assembly to the under-side of each end of both roller tables with four M8-1.25 x 16 hex bolts, four 8mm flat washers, and four M8-1.25 hex nuts (Figures 14 –15).

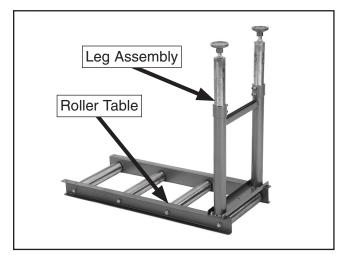


Figure 14. Placing legs on roller table.

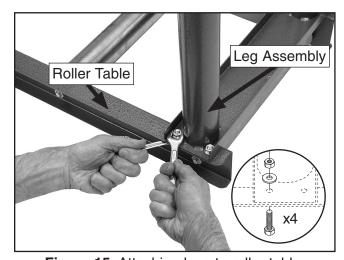


Figure 15. Attaching legs to roller table.



**4.** Flip the completed roller tables onto their feet and place them on either side of the saw, as shown in **Figure 16**.



Figure 16. Positioning roller tables.

- Place a long straightedge across the saw table and roller tables and adjust the legs so that the roller tables are even with the saw table.
- 6. Tighten all (16) leg cap screws.

## Coolant Reservoir Cover/Catch Tray

Attach the coolant reservoir cover/catch tray to the machine with the four M6-1 x 10 button head cap screws (**Figure 17**).

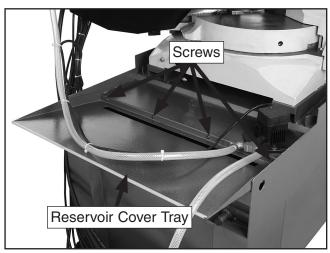


Figure 17. Coolant reservoir cover/catch tray.

## Required Adjustments

To ensure your safety and to prevent damage to the machine, you must adjust the blade tension before the **Test Run**.

Blade tension (**Page 36**) is not set at the factory to prevent unnecessary stress on the blade during shipping. If the **Test Run** is performed without first properly tensioning the blade, the blade may come off, resulting in personal injury or damage to the blade or machine.

To properly tension the blade, turn the blade tension handwheel until the blade tension gauge reads between 25,000 and 28,000 PSI (**Page 36**).



### **Test Run**

Once the assembly is complete, test run your machine to make sure it runs properly and is ready for regular operation.

The test run consists of verifying the following: 1) The motor powers up and runs correctly, 2) the stop button safety feature works correctly, and 3) the motor turns the correct direction (machine is not wired out of phase).

If, during the test run, you cannot easily locate the source of an unusual noise or vibration, stop using the machine immediately, then review **Troubleshooting** on **Page 43**.

If you still cannot remedy a problem, contact our Tech Support at (570) 546-9663 for assistance.

Refer to the diagram below during the test run procedure.

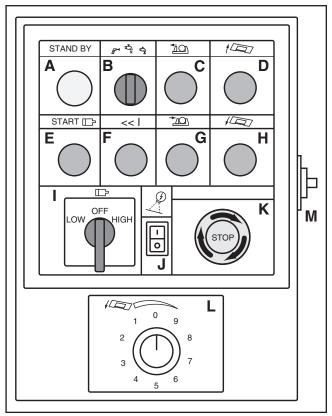


Figure 18. Control panel.

### **AWARNING**

Before starting the saw, make sure you have performed the preceding assembly and adjustment instructions, and you have read through the rest of the manual and are familiar with the various functions and safety features on this machine. Failure to follow this warning could result in serious personal injury or even death!

#### To test run the machine:

- Make sure you understand the safety instructions at the beginning of the manual and the machine is setup properly.
- 2. Make sure all tools and objects used during setup are cleared away from the machine.
- 3. Make sure that you verify the Required Adjustments listed on Page PB.
- 4. Fill the cutting fluid reservoir with cutting fluid (Page 30) if you have not already. DO NOT run the pump without cutting fluid or you will damage it.
- **5**. Connect the machine to the power source.
- **6.** Push the safety STOP button (ⓐ, K) in, then twist it clockwise so it pops out. When the STOP button pops out, the switch is reset and ready for operation (see **Figure 19**).



Figure 19. Resetting the switch.



- 7. Turn the main ON/OFF switch (M) ON.
- 8. Turn the blade speed switch ( , I) to the "Low" position.
- **9.** Press the standby button (<< 1, F). You should hear the hydraulic motor (located in the machine base) turn on.
- 10. Verify that the power is not connected out of phase by checking that the hydraulic motor is turning the correct direction, using the criteria below:
  - —If the raise bow button (t > D) raises the bow when pressed, the machine is wired in phase.
  - —If the raise bow button (t, D) makes an audible click but does not move the saw bow, the machine is wired out of phase. Stop the machine, disconnect the machine from power, then swap any two of the three power wires that connect to the machine.
- 11. Check the function of the saw bow hydraulics by pressing the raise bow button (t<sup>(√)</sup>, D) and the lower bow button (t<sup>(√)</sup>, H).
- **12.** Check the function of the vise hydraulics by pressing the vise open button (♣□, C) and the vise close button (♣□, G).
- by turning the cutting fluid pump by turning the cutting fluid pump switch ( & , B) left and right.
- **14.** With the blade in the upmost position, press the vise close (→△, G) button.

**Note:** As a safety precaution, the saw motor will not start unless the vise close button is pressed first.

- 15. Start the blade movement by pressing the start button (START □, E) while keeping your finger near the safety STOP button (♠, K).
  - —When operating correctly, the machine runs smoothly with little or no vibration or rubbing noises.

- —Investigate and correct strange or unusual noises or vibrations before operating the machine further. Always stop the machine and disconnect it from power before investigating or correcting potential problems.
- **16.** Press the STOP ( , K) button to stop the machine.
- **17.** WITHOUT resetting the switch, press the standby button (<< \opin, F), the vise close button (→□, G), then the start button (START □→, E). The machine should not start.
  - —If the machine does not start, the safety STOP button safety feature is working correctly.
  - —If the machine does start (with the stop button pushed in), immediately disconnect power to the machine. The safety STOP button safety feature is not working correctly. This safety feature must work properly before proceeding with regular operations. Call Tech Support for help.

## Recommended Adjustments

For your convenience, the adjustments listed below have been performed at the factory.

Because of the many variables involved with shipping, however, we recommend that you at least verify the following adjustments to ensure the best possible results from your new machine before putting it into use.

#### Factory adjustments that should be verified:

- Blade Tension (not set at factory. Refer to Page 36).
- Feed Stop (refer to Page 51).
- Limit Switches (refer to Page 51).



### **SECTION 4: OPERATIONS**

### **Operation Safety**



### **AWARNING**

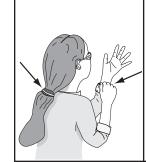
To reduce the risk of serious injury when using this machine, read and understand this entire manual before beginning any operations.



Damage to your eyes could result from using this machine without proper protective gear. Always wear safety glasses or a face shield when operating this machine.







### **AWARNING**

Loose hair, clothing, or jewelry could get caught in machinery and cause serious personal injury. Keep these items away from moving parts at all times to reduce this risk.

### **NOTICE**

If you have never used this type of machine or equipment before, WE STRONGLY REC-OMMEND that you read books, trade magazines, or get formal training before beginning any projects. Regardless of the content in this section, Grizzly Industrial will not be held liable for accidents caused by lack of training.



### **Basic Controls**

Use the descriptions and figures below to become familiar with the basic controls of your machine.

**Blade Tension Gauge:** Displays the current blade tension.

**Blade Tension Handwheel:** Tensions the blade during use and releases tension for storage or replacement.

**Blade Guide Lock Handle:** Locks/Releases the upper blade guide.

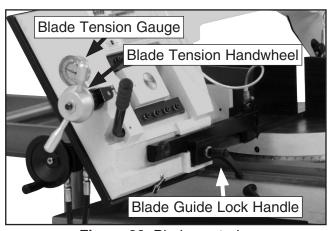


Figure 20. Blade controls.

Saw Angle Scale: Indicates the current angle of cut.

**Saw Angle Lock:** Locks the saw angle in position to prevent movement during use.

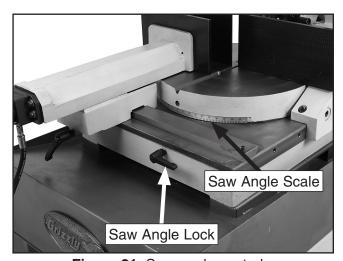


Figure 21. Saw angle controls.

Vise Handwheel: Opens/closes the vise.

Vise Quick Release: Releases the vise to allow rapid opening/closing without using the handwheel.

**Vise Position Lock:** Locks the vise in position to prevent lateral movement during use.

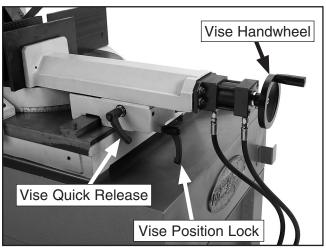


Figure 22. Vise controls.



### **Control Panel**

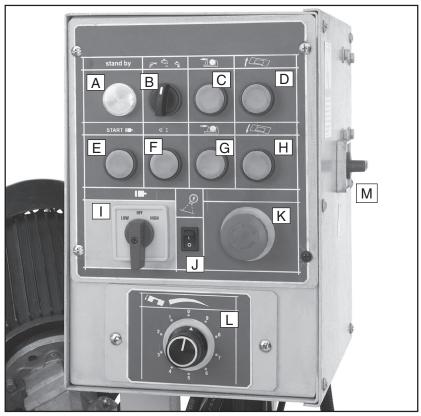


Figure 23. G0664 control panel.

- **A.** Power Indicator Light: Indicates the main power to the machine is turned *ON*.
- B. Cutting Fluid Switch ( ): Turns the cutting fluid pump to *Manual/OFF/Auto*.
- C. Vise Open Button (20): Hydraulically opens the vise approximately 3/8" to release workpieces between cuts.
- D. Raise Bow Button (t<sup>(∞)</sup>): Hydraulically raises the saw blade. Will continue raising the blade until the upper limit switch is reached or the button is released.
- E. Saw Motor Start Button (START □→): Turns the saw motor *ON/OFF*.
- **F.** Standby Button (<<1): Powers control panel and readies all functions for use. Must be pressed after safety stop button is reset.
- **G.** Vise Close Button (\*\(\sigma\)): Hydraulically closes the vise approximately \(^3\)\(^8\). Must be activated before saw motor will turn \(\overline{ON}\).

- H. Lower Bow Button ( ): Hydraulically lowers the saw blade at the rate determined by the downfeed knob (L).
- I. Blade Speed Switch ( ): Controls the speed of the blade (*LOW/OFF/HIGH*).
- J. Laser Light ON/OFF Switch (2): Turns the laser alignment function ON/OFF.
- K. Safety STOP Button ((()): When pressed, turns OFF saw motor, hydraulic motor, and cutting fluid motor. DOES NOT CUT POWER TO MACHINE! To reset, turn the button clockwise until it pops back out.
- L. Blade Downfeed Knob ( ): Controls the rate at which the blade feeds into the workpiece.
- M. ON/OFF Switch: Turns machine ON/OFF.



### **Cutting Angle**

Your bandsaw has a locking turret with a range of -45° to 60°.

#### To set the cutting angle between 0° and 60°:

- 1. Raise the bow high enough to clear the vise and press the emergency stop button to prevent accidental startup.
- 2. Loosen the saw angle lock lever, rotate the saw bow to the desired angle, as indicated by the scale, then re-tighten the swivel lock lever (Figure 24).

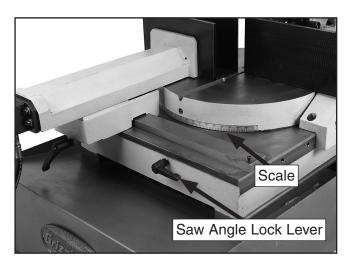


Figure 24. Saw angle lock lever.

#### To set the cutting angle between 0° and -45°:

- Raise the bow high enough to clear the vise and press the emergency stop button to prevent accidental startup.
- **2.** Loosen the saw angle lock lever, and rotate the bow to approximately 45°.

**3.** Locate the 0° stop bracket and swivel it out of the way, as shown in **Figure 25**. This will allow the bow to rotate past 0°.

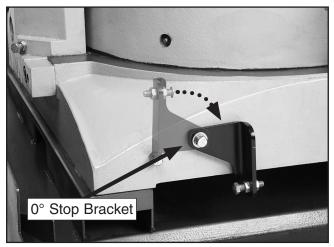


Figure 25. 0° stop bracket.

**4.** Loosen the vise position lock lever and slide the vise assembly to the right side of the saw table (**Figure 26**).

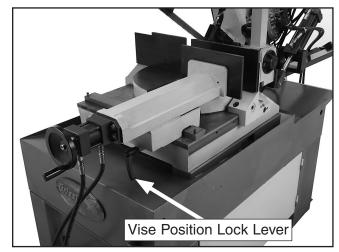


Figure 26. Positioning Vise.

5. Rotate the saw bow to the desired angle, as indicated by the scale, then re-tighten the swivel lock lever. Make sure the vise is clear of the path of the saw before proceeding.



### **Coolant Catch Tray**

Use the coolant catch tray to reduce cutting fluid lost at the end of a workpiece or when cutting at steep angles. The catch tray fits over the lip of the base as illustrated in **Figure 27**.

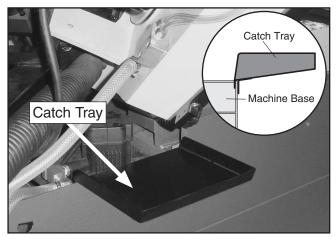


Figure 27. Catch tray installation.

### **Blade Guide Position**

The blade guide supports the blade during operation and the attached blade guard protects the operator from the exposed portion of the blade. Therefore, proper positioning is important for accurate and safe operations.

#### To position the blade guide:

- 1. Place the workpiece in the vise and clamp it in position.
- **2.** Lower the saw bow until the blade is just above the workpiece.
- 3. DISCONNECT BANDSAW FROM POWER!

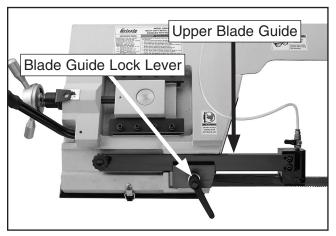


Figure 28. Blade guide and lock lever.

- 4. Loosen the blade guide lock lever,
- 5. Slide the blade guide as close to the workpiece as possible, making sure the blade guide will not contact the workpiece during operation.
- **6.** Tighten the blade guide lock lever.



### Workstop

The Model G0664 has an adjustable workstop that is easy to install and use.

#### To install the workstop:

- Thread the workstop rod into the base and tighten.
- 2. Slide the workstop onto the rod.

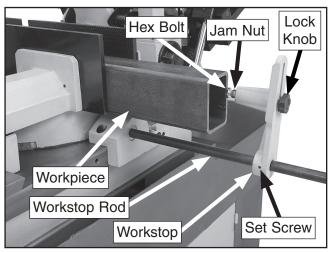


Figure 29. Workstop assembly.

3. Measure the distance from the blade to the workstop, slide the workstop to the needed position, then tighten the set screw.

**Note:** Fine adjustments can be made by loosening the jam nut, adjusting the hex bolt as needed, then re-tightening the jam nut.

### **Vise**

The Model G0664 vise is hydraulically assisted. Once the vise jaws are manually positioned close to the workpiece, the vise open/close buttons can be used to quickly and easily release and reclamp the workpiece hydraulically during repetitive operations.

#### To use the vise:

- **1.** Raise the bow (tax).
- **2.** Press the vise open button ( ).
- **3.** Insert the workpiece between the jaws.
- **4.** Use the handwheel (**Figure 30**) to move the jaws to within ½" of the workpiece.

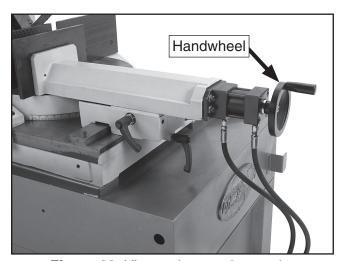


Figure 30. Vise options and controls.

5. Use the vise close button (\*\*\topin\*) to clamp the workpiece. Between cuts, use the open vise button (\*\*\topin\*) to release and reposition/reload a new workpiece.

**Note:** As a safety precaution, the vise close button (\*\(\sigma\)) must be pressed before the saw motor will start.



6. Use the chart shown in Figure 31 as a guide to quickly position the workpiece between the vise jaws correctly and to avoid slipping during a cut. DO NOT CUT STEEL THAT IS STACKED OR BUNDLED. One or more workpieces will slip and damage the saw blade.

### **A**CAUTION

Always turn the saw *OFF* and allow the blade to come to a complete stop before using the vise! Failure to follow this caution may lead to injury.

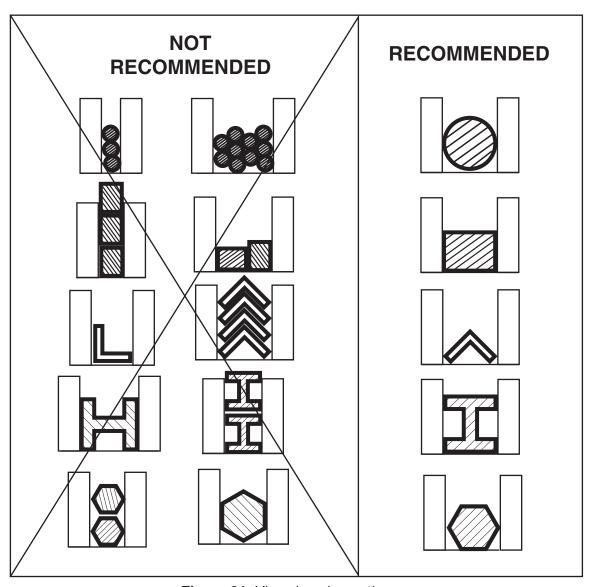


Figure 31. Vise clamping options.



### **Cutting Fluid System**



### **AWARNING**

FIRE HAZARD! DO NOT cut magnesium when using oil-water solutions as a cutting fluid! Only use a cutting fluid intended for magnesium. The water in the solution may cause a magnesium-chip fire.

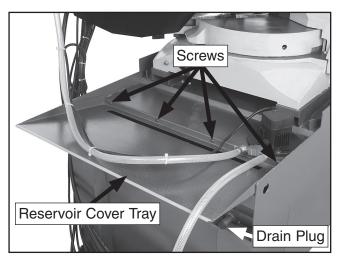
This bandsaw has a built-in cutting fluid system that extends the life of your bandsaw blades by lowering the temperature of the blade and workpiece.

The cutting fluid pump has two modes controlled by the switch on the control panel. The low-pressure setting ( $\ ^{\ }$ ) is used to supply cutting fluid directly to the blade through the fluid nozzles. The high-pressure setting ( $\ ^{\ }$ ) is used to supply high pressure to the auxiliary sprayer for rinsing metal chips into the reservoir.

See **Cutting Fluid Tips** on **Page 31** for additional information regarding selection and use.

#### To use the cutting fluid system:

- 1. DISCONNECT BANDSAW FROM POWER!
- **2.** Remove the screws and the reservoir cover tray (**Figure 32**).



**Figure 32**. Cutting fluid system reservoir and cover.

- 3. Wearing gloves, use a rag to remove any chips and foreign material that may have fallen inside the reservoir during shipping and machine use.
- **4.** Fill the reservoir with your chosen cutting fluid solution and replace the reservoir cover.
- 5. Turn the cutting fluid pump switch ( ( ) ) to the low pressure position ( ), and adjust the valves on the cutting fluid hoses to control the flow of cutting fluid (see **Figure 33**).

**Note:** Too much flow at the fluid nozzle will make a mess and can make the work area unsafe; and not enough fluid at the cut will overheat the blade, causing the blade teeth to load up and break.

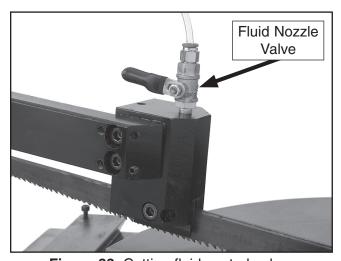


Figure 33. Cutting fluid control valve.

### **NOTICE**

NEVER operate the pump with the reservoir below the low mark or you will over-heat the pump and void your warranty!

6. Monitor the cutting fluid level frequently to keep the system working properly. DO NOT let the cutting fluid pump run dry.



### **Cutting Fluid Tips**



### WARNING

POISON & BIOLOGICAL HAZARD! Use the proper personal protection equipment when handling cutting fluid and dispose by following federal, state, and fluid manufacturer requirements to properly dispose of cutting fluid.

While simple in concept and function, many issues must be taken into account to find and use the correct cutting fluid. For example, you must consider the workpiece type and hardness, its shape, the blade feed rate, blade TPI, the tooth type, and blade type, and cutting speed. Always follow all product warnings and contact the fluid manufacturer for unanswered questions.

### Use the selections below to choose the appropriate cutting fluids:

- For cutting low alloy, low carbon, and general-purpose category metals with a bi-metal blade—use a water soluble cutting fluid.
- For cutting stainless steels, high carbon, and high alloy metals, brass, copper and mild steels—use "Neat Cutting Oil" (commonly undiluted mineral oils) that have extreme pressure additives (EP additives).
- For cutting cast iron, cutting fluid is not recommended.

**Remember:** Too much flow at the cutting fluid nozzle will make a mess and can make the work area unsafe; and not enough fluid at the cut will overheat the blade, causing the blade teeth to load up and break.



### **Blade Selection**

Selecting the right blade for the cut requires a knowledge of various blade characteristics.

#### **Blade Terminology**

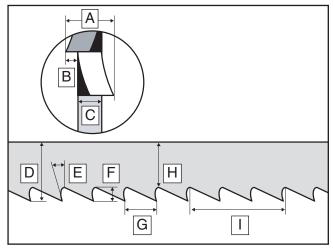


Figure 34. Bandsaw blade terminology.

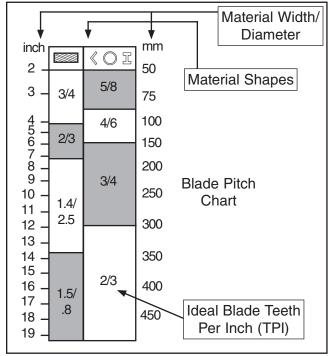
- **A. Kerf:** The width of cut made by the blade during cutting.
- **B.** Tooth Set: The distance each tooth is bent left or right from the blade edge.
- **C.** Gauge: The thickness of the blade (not including the tooth set).
- D. Blade Width: The widest point of the blade measured from the tip of the tooth to the back edge of the blade.
- **E. Tooth Rake:** The angle of the tooth face from a line perpendicular to the length of the blade.
- **F. Gullet Depth:** The distance from the tooth tip to the bottom of the curved area (gullet).
- **G. Tooth Pitch:** The distance between tooth tips.
- H. Blade Back: The distance between the bottom of the gullet and the back edge of the blade.
- I. TPI: The number of teeth per inch measured from gullet to gullet.

#### **Blade Pitch (TPI)**

The chart below is a basic starting point for choosing teeth per inch (TPI) for variable tooth pitch blades and standard raker set bi-metal blades/ HSS blades. However, for exact specifications of bandsaw blades that are correct for your operation, contact the blade manufacturer.

#### To select the correct blade pitch:

- Measure the material thickness. This measurement is the length of cut taken from where the tooth enters the workpiece, sweeps through, and exits the workpiece.
- Refer to the "Material Width/Diameter" row of the blade selection chart in Figure 35, and read across to find the workpiece thickness you need to cut.



**Figure 35.** General guidelines for blade selection and speed chart.

- 3. Refer to the "Material Shapes" row and find the shape of the material to be cut.
- 4. In the applicable row, read across to the right and find the box where the row and column intersect. Listed in the box is the minimum TPI recommended for the variable tooth pitch blades.



#### **Blade Length**

Measured by the blade circumference, blade lengths are usually unique to the brand of your bandsaw and the distance between the wheels. The Model G0664 uses a 129"-131" blade.

#### **Blade Width**

Measured from the back of the blade to the tip of the blade tooth (the widest point), blade width is often the first consideration given to blade selection. Blade width dictates the largest and smallest curve that can be cut, as well as how accurately it can cut a straight line—generally the wider the blade, the straighter it will cut. The Model G0664 uses a 1½16" wide blade.

### **Setting Feed Rate**

Feed rate is the speed at which the bow lowers and the saw blade cuts through a workpiece. The feed rate dial adjusts the feed rate. If a lubricant is used while cutting, the feed rate can be increased by approximately 15%.

#### To set the feed rate:

- **1.** Raise the bow to the upmost position by pressing the raise bow button (t = 0).
- 2. Set the feed rate dial ( ) to the desired feed rate; 0 (fully clockwise) is the slowest and 9 (fully counterclockwise) is the fastest (**Figure 36**).

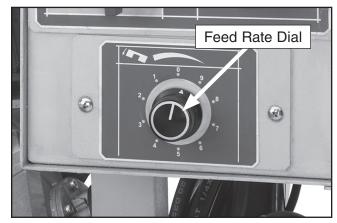


Figure 36. Feed rate dial.

- **3.** Proceed with cutting operations.
- Observe the metal chips produced by the cut and refer to Chip Inspection Chart on Page 35 for information on how to adjust your feed rate for optimum cutting performance.



### **Blade Speed**

The Model G0664 has a two-speed control with settings of 160 and 320 feet per minute (FPM). The speed is controlled by a rotary switch and can be switched while the motor is operating. The speed should not be switched during a cut.

The table shown in **Figure 37** is a sampling of speed rates for various materials. Use these as a guideline, and use the cutting fluid system on your bandsaw to get the most life from your blades.

### NOTICE

DO NOT change motor speed during a cut as this may overload a series of engaged blade teeth, resulting in damage to the blade and possible blade breakage.

| Material       | Alloy ASTM Number   | Blade Speed |  |
|----------------|---------------------|-------------|--|
| Copper 173,932 |                     | Hi          |  |
| Alloys         | 330,365             | Hi          |  |
| 1              | 623,624             | Hi          |  |
|                | 230,260,272         | Lo          |  |
|                | 280,264,632,655     | Lo          |  |
|                | 101,102,110,122,172 | Lo          |  |
|                | 1751,182,220,510    | Lo          |  |
|                | 625, 706, 715, 934  | Lo          |  |
|                | 630                 | Lo          |  |
|                | 811                 | Lo          |  |
| Carbon         | 1117                | Hi          |  |
| Steels         | 1137                | Hi          |  |
|                | 1141,1144           | Hi          |  |
|                | 1141 High Stress    | Hi          |  |
|                | 1030                | Hi          |  |
|                | 1008,1015,1020,1025 | Hi          |  |
|                | 1035                | Hi          |  |
|                | 1018,1021,1022      | Hi          |  |
|                | 1026,1513           | Hi          |  |
|                | A36 (SHAPES),1040   | Hi          |  |
|                | 1042,1541           | Lo          |  |
|                | 1044,1045           | Lo          |  |
|                | 1060                | Lo          |  |
|                | 1095                | Lo          |  |

| Material    | Alloy ASTM Number | Blade Speed |
|-------------|-------------------|-------------|
| Nickle      | 8615, 8620, 8622  | Hi          |
| Chrome      | 4340, E4340, 8630 | Lo          |
| Molybdenum  | 8640              | Lo          |
| Alloys      | E9310             | Lo          |
| Tool Steels | A-6               | Lo          |
|             | A-2               | Lo          |
|             | A-10              | Lo          |
|             | D-2               | Lo          |
|             | H-11,H-12,H-13    | Lo          |
| Stainless   | 420               | Lo          |
| Steels      | 430               | Lo          |
|             | 410,502           | Lo          |
|             | 414               | Lo          |
|             | 431               | Lo          |
|             | 440C              | Lo          |
|             | 304, 324          | Lo          |
|             | 304L              | Lo          |
|             | 347               | Lo          |
|             | 316, 316L         | Lo          |
|             | 416               | Lo          |

Figure 37. Material speed table.



### **Chip Inspection Chart**

The best method of evaluating the performance of your cutting operation is to inspect the chips that are formed. Refer to the chart below for chip inspection guidelines.

| Chip<br>Appearance | Chip<br>Description     | Chip<br>Color            | Blade<br>Speed | Feed<br>Rate         | Feed<br>Pressure     | Additional<br>Actions |
|--------------------|-------------------------|--------------------------|----------------|----------------------|----------------------|-----------------------|
| 0                  | Thin & Curled           | Silver                   | Good           | Good                 | Good                 |                       |
| ~/~                | Hard, Thick &<br>Short  | Brown or Blue            | Decrease       | Decrease             | Decrease             |                       |
|                    | Hard, Strong &<br>Thick | Brown or Blue            | Decrease       | Decrease             | Decrease             |                       |
| 0                  | Hard, Strong &<br>Thick | Silver or Light<br>Brown | Good           | Decrease<br>Slightly | Decrease<br>Slightly | Check Blade<br>Pitch  |
| (e)                | Hard & Thin             | Silver                   | Increase       | Decrease             | Decrease             | Check Blade<br>Pitch  |
|                    | Straight & Thin         | Silver                   | Good           | Increase             | Increase             |                       |
|                    | Powdery                 | Silver                   | Decrease       | Increase             | Increase             |                       |
|                    | Curled Tight &<br>Thin  | Silver                   | Good           | Decrease             | Decrease             | Check Blade<br>Pitch  |

Figure 38. Chip inspection chart.



### **Blade Tensioning**

### NOTICE

To prolong blade life, release the tension on the blade if the machine will be idle for an extended period of time.

Proper blade tension reduces the risk of blade breakage and improves cutting performance.

**Note:** The most accurate way to check blade tension is to use the Model H5408 Blade Tensioning Gauge (see **Accessories** on **Page 39**).

To tension the blade, turn the blade tension handwheel until the blade tension gauge reads between 25,000 and 28,000 PSI.

## Blade Care & Break-In

#### Blade Care

A bandsaw blade is a delicate piece of steel that is subjected to tremendous strain. You can obtain longer use from a bandsaw blade if you give it fair treatment and always use the appropriate feed rate for your operation.

Be sure to select blades with the proper width, set, type, and pitch for each application. The wrong choice of blades will often produce unnecessary heat and will shorten the life of your blade.

A clean blade will perform much better than a dirty blade. Dirty or gummed up blades pass through the cutting material with much more resistance than clean blades. This extra resistance also causes unnecessary heat.

#### **Blade Break-In**

The sharp teeth tips and edges of a new blade are extremely sharp, and cutting at full feed rate may cause fracturing of the beveled edges of the teeth and premature blade wear.

#### To properly break-in a new Grizzly blade:

- **1.** Choose the correct speed for the blade and material of the operation.
- 2. Reduce the feed pressure by half for the first 50–100 in<sup>2</sup> of material cut.
- 3. To avoid twisting the blade when cutting, adjust the feed pressure when the total width of the blade is in the cut.
- 4. Use the **Chip Inspection Chart** on **Page 35** to check the blade efficiency.



#### **Blade Breakage**

Many conditions may cause a bandsaw blade to break. Blade breakage is unavoidable, in some cases, since it is the natural result of the peculiar stresses that bandsaw blades must endure. Blade breakage is also due to avoidable circumstances. Avoidable blade breakage is most often the result of poor care or judgement on the part of the operator when mounting or adjusting the blade or support guides.

## The most common causes of blade breakage are:

- Faulty alignment or adjustment of the blade guides.
- Feeding the blade too fast.
- Dull or damaged teeth.
- Over-tensioned blade.
- Top blade guide assembly set too high above the workpiece. Adjust the top blade guide assembly so that there is approximately ½" between the bottom of the assembly and the workpiece.
- Using a blade with a lumpy or improperly finished braze or weld.
- Continuously running the bandsaw when not in use.
- Leaving the blade tensioned when not in use.
- Using the wrong pitch (TPI) for the workpiece thickness. The general rule of thumb is to have at least two teeth in contact with the workpiece at all times during cutting.

## Workpiece Inspection

Some metal workpieces are not safe to cut with a metal cutting bandsaw; instead, a different tool or machine should be used.

Before cutting, inspect the material for any of the following conditions and take the necessary precautions:

- Small or Thin Workpieces: Small or thin
  workpieces may be damaged during cutting—avoid cutting these workpieces if possible. If you must cut a small or thin workpiece,
  attach it to or clamp it between larger scrap
  pieces that will both support the workpiece
  through the cut. Some thin sheet metals will
  not withstand the forces from this bandsaw
  during cutting; instead, use a shear, nibblers,
  or sheet metal nippers to cut these pieces.
- Unstable Workpieces: Workpieces that cannot be properly supported or stabilized with the vise should not be cut on this bandsaw.
   Examples are chains, cables, workpieces with internal or built-in moving or rotating parts, etc.
- Material Hardness: Always factor in the hardness of the metal before cutting it. Hardened metals will take longer to cut, may require lubrication, and may require a different type of blade in order to efficiently cut them.
- Tanks, Cylinders, Containers, Valves, Etc:
   Cutting into containers that are pressurized or contain gasses or liquids can cause explosions, fires, caustic burns, or machine damage. Avoid cutting any of these types of containers unless you have verified that the container is empty and it can be properly supported during a cut.
- Magnesium: Pure magnesium burns easily. Cutting magnesium with a dull blade can create enough friction to ignite the small magnesium chips. Avoid cutting magnesium if possible.



## **Operation Tips**

The following tips will help you safely and effectively operate your bandsaw and get the maximum life out of your saw blades.

#### **NOTICE**

Loosen blade tension at the end of each day to prolong blade life.

#### Tips for horizontal cutting:

- Use the work stop to quickly and accurately cut multiple pieces of stock to the same length.
- Clamp the material in the vise jaws to ensure a straight cut through the material.
- Let the blade reach full speed before engaging the workpiece.
- Never start a cut with the blade in contact with the workpiece and do not start a cut on a sharp edge.

- Chips should be curled and silvery. If the chips are thin and powder like, increase your feed rate.
- Burned chips indicate a need to reduce your blade speed.
- Wait until the blade has completely stopped before removing the workpiece from the vise, and avoid touching the cut end—it could be very hot!
- Support long pieces so they won't fall when cut, and flag the ends to alert passers-by of potential danger.
- Adjust the blade guides as close as possible to the workpiece to minimize side-to-side blade movement.
- Use cutting fluid when possible to increase blade life.



## **SECTION 5: ACCESSORIES**

T20534—3-4 TPI Variable Pitch Blade
T20535—4-6 TPI Variable Pitch Blade
T20536—5-8 TPI Variable Pitch Blade
T20537—6-10 TPI Variable Pitch Blade
T20538—8-12 TPI Variable Pitch Blade
Replacement blades for the Model G0664 Heavy-Duty Metal Cutting Bandsaw. 1293/8 length.

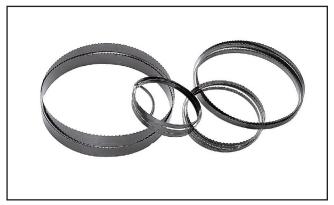


Figure 39. Blades.

#### H5408—Blade Tensioning Gauge

The Blade Tensioning Gauge ensures long blade life, reduced blade breakage, and straight cutting by indicating correct tension. A precision dial indicator provides you with a direct readout in PSI.



Figure 40. H5408 Blade Tensioning Gauge.

#### H5405—Lenox® Lube Tube™

Lenox<sup>®</sup> Lube Tube<sup>™</sup> is a stick lubricant designed to prevent heat buildup. Apply it directly to the blade to improve overall blade life and productivity. Can be used on ferrous and non-ferrous metals. Biodegradeable, non-toxic, and non-staining 14.5 oz tube.



Figure 41. Lenox<sup>®</sup> Lube Tube<sup>™</sup>.

## T20677—Acculube Metalworking Lubricant (for Medium to Heavy-Duty Machining)

This environmentally safe, non-toxic, all natural cutting fluid is idea for drilling and tapping, machining, and sawing. It is recommended for all ferrous metals. Made from renewable resources!

Call 1-800-523-4777 To Order



#### G5618—Deburring Tool with Two Blades G5619—Extra Aluminum Blades G5620—Extra Brass and Cast Iron Blade

The quickest tool for smoothing freshly machined metal edges. Comes with two blades—one for steel/aluminum and one for brass/cast iron.



Figure 42. G5618 Deburring tool.

T20501—Face Shield, 4" Crown, Clear T20502—Face Shield, 7" Crown, Clear T20448—Economy Clear Safety Glasses T20452—"Kirova" Anti-Reflective Glasses T20456—"Dakura" Clear Safety Glasses

H0736—Shop Fox® Safety Glasses

These glasses meet ANSI Z87.1-2003 specifications. Buy extras for visitors or employees. You can't be too careful with shop safety!

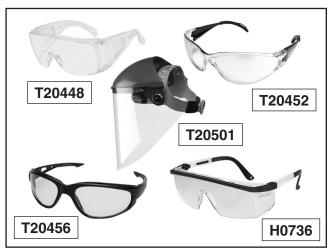


Figure 43. Our most popular eye protection.

G9256—6" Dial Caliper G9257—8" Dial Caliper G9258—12" Dial Caliper

These traditional dial calipers are accurate to 0.001" and can measure outside surfaces, inside surfaces, and heights/depths. Features stainless steel, shock resistant construction and a dust proof display.

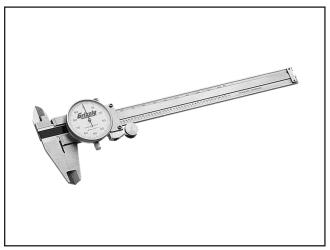


Figure 44. Grizzly® Dial Calipers.

#### G5562—SLIPIT® 1 Qt. Gel G5563—SLIPIT® 12 oz Spray

Used on cast iron table surfaces and other unpainted metal surfaces to reduce sliding friction and hangups. This product also reduces rust and prevents resin build-up.

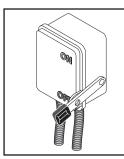


Figure 45. SLIPIT® gel and spray.

Call 1-800-523-4777 To Order



## **SECTION 6: MAINTENANCE**



#### **AWARNING**

Always disconnect power to the machine before performing maintenance. Failure to do this may result in serious personal injury.

#### **Schedule**

For optimum performance from your machine, follow this maintenance schedule and refer to any specific instructions given in this section.

#### After first 50 hours:

Change hydraulic fluid.

#### Daily Check:

- Loose mounting bolts.
- Damaged or worn saw blade.
- Worn or damaged wires.
- Proper blade tension.
- Hydraulic/cutting fluid level.
- Clean and wipe down machine.

#### **Monthly Check:**

Lubricate vise and blade tensioner leadscrew.

#### Six-Month Check:

Change hydraulic fluid.

#### **Annual Check:**

 Replace cutting fluid and clean out tank. If the saw is used heavily, clean the tank and replace the cutting fluid at shorter intervals.

#### **Cleaning**

Cleaning the Model G0664 is relatively easy. After using your bandsaw, clean excess chips by vacuuming or sweeping them up.

If using water based cutting fluid, wipe down and lubricate areas where the liquid may collect and cause corrosion.

#### Lubrication

All bearings and the gearbox on the Model G0664 are lubricated and sealed for life. No further attention is needed unless damage occurs.

#### To lubricate the bandsaw:

 Lubricate the blade tensioner leadscrew (Figure 46) with multi-purpose grease, and apply a coat of high-quality metal protectant such as SLIPIT® on Page 40 to all unprotected cast iron surfaces.

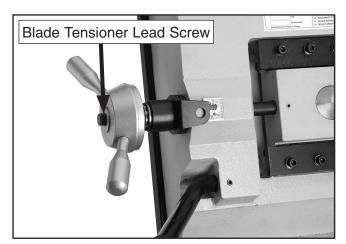


Figure 46. Lubrication point.

2. Lubricate the leadscrew as needed with multipurpose grease by applying a thin layer along the leadscrew surface (see **Figure 47**).



Figure 47. Vise leadscrew lubrication area.



## **Hydraulic System**

#### **Checking Hydraulic Fluid**

- Check the fluid level gauge located on the side of the tank. (Figure 48). The fluid level indicator should be above half.
  - —If the fluid level is low, add until it is full.

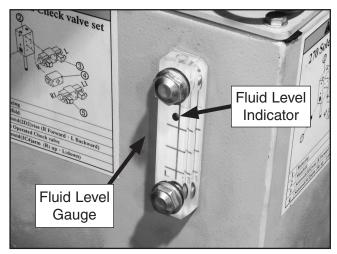


Figure 48. Hydraulic fluid tank gauge.

2. Inspect for burnt-smelling or tan-colored, water-contaminated hydraulic fluid. If the fluid is contaminated, clean the tank filter/strainer, flush the system, and replace the fluid.

#### **Changing Hydraulic Fluid (Figure 49)**



| Hydraulic Fluid Type | Qty |
|----------------------|-----|
| ISO 15 or equivalent | 15L |

- DISCONNECT BANDSAW FROM POWER!
- Unbolt and remove the tank, then place it on blocks high enough to get a 3 gallon drain pan under it.
- 3. Remove the drain plug and allow the tank to empty into the drain pan.

- 4. Remove the tank vent cap.
- 5. Clean the tank vent with mineral spirits and let air dry.
- 6. Clean the tank screen with mineral spirits and blow dry with compressed air.
- 7. Inspect the screen and tank vent for any holes and replace if any damage exists.
- 8. Open the tank by removing the hex bolts that secure the lid.
- 9. Wipe out as much residual fluid and contaminants from the tank as possible. We highly recommend that the tank be cleaned out with a pressure washer or steam cleaner and fully dried with compressed air for best results.
- 10. Reinstall the tank lid and screen.
- 11. Replace the drain plug, then fill the tank with 15 liters of ISO 15 or equivalent fluid, then reinstall the tank vent cap.

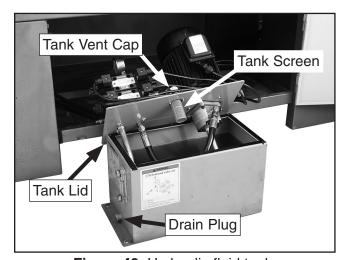


Figure 49. Hydraulic fluid tank.



## **SECTION 7: SERVICE**

Review the troubleshooting and procedures in this section to fix or adjust your machine if a problem develops. If you need replacement parts or you are unsure of your repair skills, then feel free to call our Technical Support at (570) 546-9663.

## **Troubleshooting**

#### **Motor & Electrical**

| SYMPTOM                              | POSSIBLE CAUSE                                       | CORRECTIVE ACTION   |
|--------------------------------------|--|---|
| Machine does not start or a          | Safety Stop button pressed.                          | Twist Safety Stop button until it pops out.                       |
| breaker trips.                       | 2. Machine is wired out of phase (only               | Ensure correct size for machine load;                             |
|                                      | if this is the first time the machine is             | replace weak breaker.   |
|                                      | run).  |   |
|                                      | 3. Wall fuse/circuit breaker is blown/               | 3. Check for broken wires or disconnected/corroded                |
|                                      | tripped.   | connections, and repair/replace as necessary.                     |
|                                      | 4. Wiring is open/has high resistance.               | 4. Test for good contacts; correct the wiring.                    |
|                                      | 5. Plug/receptacle is at fault or wired              | 5. Correct wiring.  |
|                                      | incorrectly.  6. Motor connection wired incorrectly. | Correct motor wiring connections.                                 |
|                                      | 7. Power supply is at fault/switched                 | 7. Ensure hot lines have correct voltage on all legs and          |
|                                      | OFF.   | main power supply is switched <b>ON</b> .                         |
|                                      | 8. Motor ON/OFF switch is at fault.                  | Replace faulty ON/OFF switch.                                     |
|                                      | 9. Motor is at fault.                                | Test/repair/replace.  |
| Manking skalle on in some            | <del></del>  |   |
| Machine stalls or is over-<br>loaded | 1. Wrong blade for the workpiece                     | Use blade with correct properties for your type of cut-           |
| loadod                               | material.  | ting.  2. Use metal with correct properties for your type of cut- |
|                                      | 2. Wrong workpiece material.                         |   |
|                                      | 3. Feed rate/cutting speed too fast for              | ting. 3. Decrease feed rate/cutting speed.                        |
|                                      | task.  | 3. Decrease reed rate/culting speed.                              |
|                                      | 4. Blade is slipping on wheels.                      | 4. Adjust blade guides and tension.                               |
|                                      | 5. Incorrect power supply voltage.                   | 5. Ensure hot lines have correct voltage on all legs.             |
|                                      | 6. Motor bearings are at fault.                      | 6. Test by rotating shaft; rotational grinding/loose shaft        |
|                                      |  | requires bearing replacement.                                     |
|                                      | 7. Plug/receptacle is at fault.                      | 7. Test for good contacts; correct the wiring.                    |
|                                      | 8. Motor connection is wired incorrectly.            | Correct motor wiring connections.                                 |
|                                      | 9. Motor has overheated.                             | 9. Clean off motor, let cool, and reduce workload.                |
|                                      | 10. Motor is at fault.                               | 10. Test/repair/replace.  |
| Machine has vibration or             | 1. Motor fan is rubbing on fan cover.                | 1. Replace dented fan cover; replace loose/damaged                |
| noisy operation.                     |  | fan.  |
|                                      | 2. Blade is at fault.                                | 2. Replace/resharpen blade.                                       |
|                                      | 3. Worm gear is at fault.                            | 3. Rebuild gearbox for bad gear(s)/bearing(s).                    |
|                                      | 4. Wrong blade for material.                         | 4. Change blade.  |
|                                      | 5. Speed is set too slow.                            | 5. Adjust speed as required.                                      |



#### **Bandsaw Operations**

| SYMPTOM   | POSSIBLE CAUSE   | CORRECTIVE ACTION   |
|---|--|---|
| Machine is loud when cutting or bogs down in the cut. | Excessive feed rate or blade speed.     The blade TPI is too great, or the material is too coarse.                           | <ol> <li>Refer to Setting Feed Rate on Page 33, or Blade Speed on Page 34 and adjust as required.</li> <li>Refer to Blade Selection on Page 32 and adjust as required.</li> </ol> |
| Blades break often.                                   | Blade is not tensioned correctly.  | Check to see that blade is not excessively tight or   |
|   | 2. The workpiece is loose in the vise.   | too loose.  2. Clamp the workpiece tighter, or use a jig to hold the workpiece.   |
|   | 3. The feed or cut speed is wrong.   | 3. Refer to Setting Feed Rate on Page 33, or Blade Speed on Page 34, and adjust as required.  |
|   | <ul><li>4. The blade TPI is too great, or the material is too coarse.</li><li>5. The blade is rubbing on the wheel</li></ul> | <ul> <li>4. Refer to Blade Selection on Page 32, and adjust as required.</li> <li>5. Refer to Squaring Blade on Page 49, and adjust</li> </ul>                                    |
|   | flange.  | as required.  |
|   | 6. The bandsaw started with the blade resting on the workpiece.  | 6. Start bandsaw and then slowly lower the headstock by <b>Setting Feed Rate</b> on <b>Page 33</b> .  |
|   | 7. The guide bearings are misaligned, or the blade is rubbing on the wheel flange.   | 7. Refer to <b>Squaring Blade</b> on <b>Page 49</b> , or <b>Blade Guides</b> on <b>Page 47</b> , and adjust as required.  |
|   | 8. The blade is too thick, or the blades are of low quality.   | 8. Use a higher quality blade.  |
| Blade dulls prematurely.                              | The cutting speed is too fast.   | Refer to <b>Blade Speed</b> on <b>Page 34</b> , and adjust as required.   |
|   | 2. The blade TPI is too coarse.  | Refer to <b>Blade Selection</b> on <b>Page 34</b> , and adjust as required.   |
|   | The blade feed pressure is too light.  | 3. Refer to <b>Setting Feed Rate</b> on <b>Page 33</b> , and adjust as required.  |
|   | 4. The workpiece has hard spots, welds, or scale.  | 4. Increase the feed pressure, and reduce the cutting speed.  |
|   | 5. The blade is twisted.   | <ul><li>5. Replace the blade.</li><li>6. Refer to Blade Tension on Page 36, and adjust as</li></ul>   |
|   | The blade is slipping on the wheels.   | required.   |
| Blade wears on one side.                              | The blade guides are worn.   | Refer to <b>Blade Guides</b> on <b>Page 47</b> and replace or adjust.   |
|   | 2. The blade guide slide bracket is loose.   | 2. Tighten the blade guide bracket.   |
|   | 3. The wheels are out of alignment.  | 3. Refer to <b>Squaring Blade</b> on <b>Page 49</b> , and adjust as required.   |
| Teeth are ripping from the blade.                     | The feed pressure is too heavy and the blade speed is too slow; or the blade TPI is too coarse for the workpiece.            | Refer to <b>Blade Selection</b> on <b>Page 34</b> and decrease the feed pressure. Refer to <b>Setting Feed Rate</b> on <b>Page 33</b> , and adjust as required.                   |
|   | The workpiece is vibrating in the vise.  | 2. Re-clamp the workpiece in the vise, and use a jig if required.   |
|   | 3. The blade gullets are loading up with chips.  | 3. Use a coarser-tooth blade.   |
| The cuts are crooked.                                 | The feed pressure is too high.   | Refer to Setting Feed Rate on Page 33, and adjust as required.  |
|   | 2. The guide bearings are out of adjustment, or too far away from the workpiece.   | Refer to <b>Blade Guides</b> on <b>Page 47</b> and replace or adjust.   |
|   | 3. The blade tension is low.   | 3. Refer to <b>Blade Tension</b> on <b>Page 36</b> , and adjust as required.  |
|   | 4. The blade is dull.  | 4. Refer to <b>Blade Change</b> on <b>Page 46</b> and replace the blade.  |
|   | 5. The blade speed is wrong.   | 5. Refer to <b>Blade Speed</b> on <b>Page 34</b> , and adjust as required.  |



#### **Hydraulic System Troubleshooting**

| SYMPTOM                      | POSSIBLE CAUSE  | CORRECTIVE ACTION  |
|------------------------------|---|--|
| Hydraulics aren't function-  | 1. Machine is not in "Standby Mode".                    | Press the standby (<< I) button.   |
| ing.                         | 2. Hydraulic fluid level is low.                        | 2. Check/fill hydraulic fluid level.   |
|                              | 3. Machine is wired out of phase.                       | 3. Wire machine in phase.  |
|                              | 4. Hydraulic pump motor wiring connection is incorrect. | 4. Check/correct pump motor wiring.  |
|                              | 5. Hydraulic system is leaking.                         | 5. Test for leaks/repair.  |
|                              | 6. Hydraulic pump is faulty.                            | 6. Test/repair/replace.  |
|                              | 7. Control panel wiring is faulty.                      | 7. Check that hydraulic pump motor is running and that solenoids are activating (indicated by red LED in solenoid plug). |
| Vise doesn't open/close.     | Vise valve solenoids are faulty.                        | Test/repair/replace.   |
|                              | 2. Vise valve solenoids connections                     | 2. Check solenoid plugs.   |
|                              | are bad.  |  |
|                              | 3. Vise hydraulic system is leaking.                    | 3. Test for leaks/repair.  |
|                              | 4. Vise ram is faulty.                                  | 4. Test/repair/replace.  |
|                              | 5. Control panel wiring is faulty.                      | 5. Check that hydraulic pump motor is running and that   |
|                              |   | solenoids are activating (indicated by red LED in sole-  |
|                              |   | noid plug).  |
| Saw bow doesn't raise/lower. | Saw bow valve solenoids are faulty.                     | Test/repair/replace.   |
|                              | 2. Saw bow valve solenoids connections are bad.         | 2. Check solenoid plugs.   |
|                              | 3. Saw bow hydraulic system is leaking.                 | 3. Test for leaks/repair.  |
|                              | 4. Saw bow ram is faulty.                               | 4. Test/repair/replace.  |
|                              | 5. Control panel wiring is faulty.                      | 5. Check that hydraulic pump motor is running and that solenoids are activating (indicated by red LED in sole-           |
|                              |   | noid plug).  |



## **Blade Change**

Change the blade when it becomes dull, damaged, or when you are using materials that require a blade of a certain type or tooth count.



#### **ACAUTION**

CUTTING HAZARD!
Blades are sharp! Put
on heavy leather gloves
when handling a blade
or making adjustments
near a blade or cutter!

#### To change the blade on the bandsaw:

- 1. Raise the bow enough so that the wheel access cover can be opened.
- 2. DISCONNECT BANDSAW FROM POWER!
- **3.** Open the wheel access cover to expose the blade and wheels (**Figure 50**).

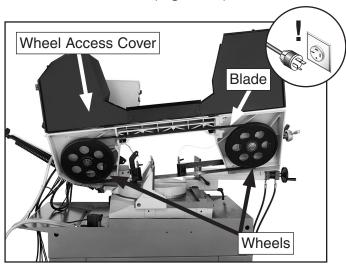
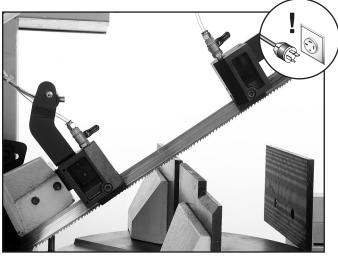


Figure 50. Wheel access cover.

- **4.** Fully extend the blade guide to reduce the twisting force on the blade.
- Remove both of the blade guide guards and the wheel brush from the bandsaw (Figure 51).



**Figure 51.** Guards and wire brush wheel removed.

- **6.** Loosen the blade tension handwheel and slip the blade off of the wheels.
- Install the new blade through both blade guide assemblies and around the bottom wheel.
- **8.** Have an assistant hold the blade on the bottom wheel while you position it on the top wheel.
- **9.** Adjust the blade so the back of the blade is against the shoulder of the wheels. Slightly tighten the blade tension handwheel if necessary to hold the blade in place (**Figure 52**).

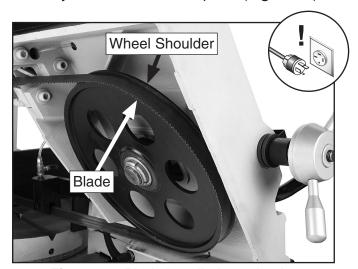


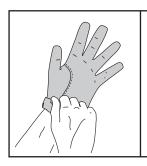
Figure 52. Blade installed on wheels.

- **10.** Reinstall the wheel brush, the blade guide guards, and close the wheel access cover.
- **11.** Adjust the blade tension to 25,000 to 28,000 PSI (**Page 36**).



#### **Blade Guides**

The blade guides have a basic factory adjustment, but due to shipping, storage, and wear, we recommend that you re-adjust the blade guides yourself to ensure the cuts will to be your standards.



## **A**CAUTION

CUTTING HAZARD!
Blades are sharp! Put
on heavy leather gloves
when handling a blade
or making adjustments
near a blade or cutter!

#### To adjust the blade guides:

- **1.** Make sure the blade is oiled, tensioned, and tracking correctly.
- 2. Raise the bow to the upmost position.
- 3. DISCONNECT BANDSAW FROM POWER!
- **4.** Extend the blade guide as far as possible and lock it in place (**Figure 53**).

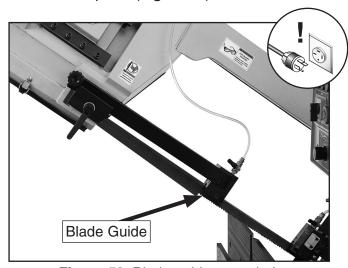


Figure 53. Blade guide extended.

**5.** Loosen the blade guide cap screw that holds the blade guide in position (**Figure 54**).

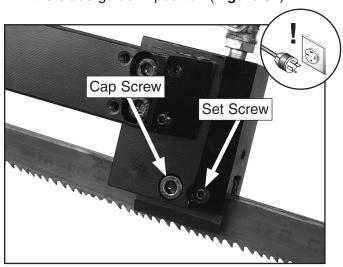


Figure 54. Blade guide.

**6.** Loosen the set screw. This set screw controls the inward and outward positioning of the blade guide.

Note: Because the blade guides must hold the blade perpendicular to the table and at an angle to the wheel surface, there will be constant pressure between the blade and the guides. The goal is to get the guides close enough together to hold the blade straight but not so tight so that they create excessive friction.

- Gently tighten the set screw until the blade is just pressed flat between the blade guides. Do not force the set screw into the blade guide.
- **8.** Back the set screw out ½ turn to prevent pinching the blade.
- 9. Tighten the blade guide cap screw.
- **10.** Loosen the blade guide assembly cap screws.
- 11. Adjust the blade guide assembly vertically so that the back of the blade is just next to, but not touching the rear blade guide, then tighten the blade guide assembly cap screws.
- **12.** Repeat this process for the lower blade guide assembly.



#### Wheel Brush

The Model G0664 is equipped with a wire wheel brush to clean metal chips from the blade, reducing wear to the blade and machine. With use, the wheel will wear requiring adjustment and eventual replacement.

#### To adjust/replace the wheel brush:

- Raise the bow to the upmost position to allow the best access to the wheel brush.
- 2. DISCONNECT BANDSAW FROM POWER!
- 3. Support the wheel brush so it doesn't fall, then loosen the two Phillip head screws that secure the wheel brush (**Figure 55**).

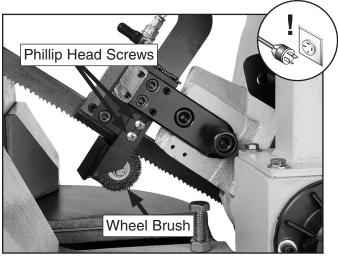


Figure 55. Wheel brush.

- **4.** Adjust the brush so that the blade extends approximately 1/8" into the brush bristles.
  - —If the brush cannot be adjusted to this specification due to wear, it must be replaced. Remove the old wheel brush and position a new one as outlined in **Step 4**.
- **5.** Tighten the Phillip head screws to secure the wheel brush.



#### **Squaring Blade**

The blade-to-table squareness is factory set. However, due to shipping and storage we recommend that you check the blade alignment yourself to ensure the cuts will be to your standards.

#### To square the blade:

- DISCONNECT BANDSAW FROM POWER!
- Make sure the blade is oiled, tensioned, and tracking correctly, and that the guides and stops are set.
- **3.** Adjust the cutting angle to 0° as indicated by the scale.

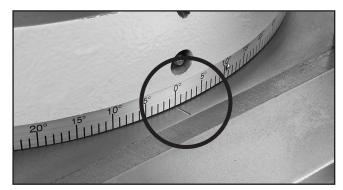


Figure 56. Bow and headstock moved to zero.

**4.** Place a quality square on the table and the side of the blade (**Figure 57**) to verify the blade is square with the table.

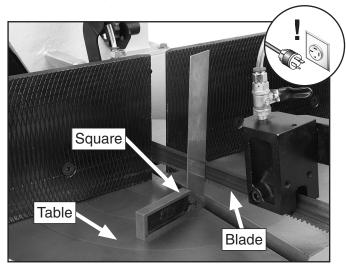


Figure 57. Checking blade squareness to vise.

- —If the blade is square, no further adjustments are necessary.
- —If the blade is not square, continue with **Step 5** below.
- **5.** Extend the blade guide as far as possible.

**Note:** Perform the following step on both the upper and lower blade guides at the same time to maintain even force on the blade with each blade guide.

6. Loosen the two cap screws on each blade guide assembly, then alternately adjust the four 4mm set screws to tilt the blade guide assembly and the blade square to the table.

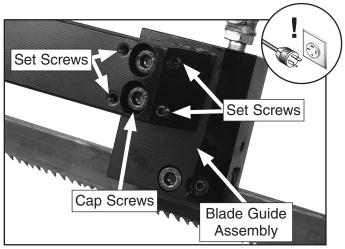


Figure 58. Upper blade guide adjustment.

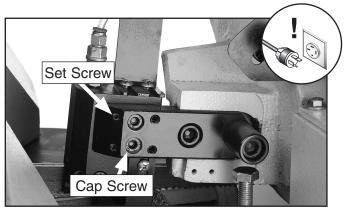


Figure 59. Lower blade guide adjustment.

7. Snug the cap screws to hold the new blade guide setting.



## **Swivel Stops**

The blade swivel stops are factory set. However, due to shipping and storage we recommend that you check the  $0^{\circ}$ , -45° and the  $60^{\circ}$  stops yourself to ensure the cuts will to be your standards. **Note:** The accuracy range for the scale is  $\pm \frac{1}{2}$ ° degree.

#### To adjust the swivel stops:

- Make sure the blade is oiled, tensioned, and tracking correctly, and that the guides are set.
- 2. DISCONNECT BANDSAW FROM POWER!
- **3.** Raise the bow, move and lock the headstock to 0° (**Figure 60**), then lower the bow.

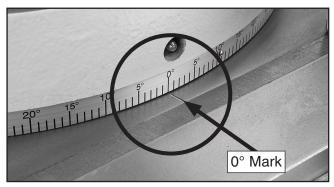


Figure 60. Bow and headstock moved to zero.

4. Observe the scale, and if the headstock is not at 0°, adjust the zero stop (**Figure 61**) so it will line up with the mark.

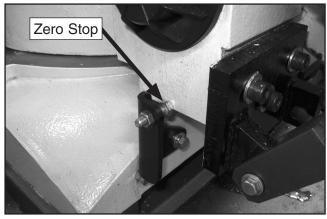


Figure 61. Zero degree swivel stop.

- Move the headstock to 60°.
- **6.** Read the scale. The bandsaw blade should be at 60°.
  - —If the headstock is not at 60°, adjust the stop (**Figure 62**) so it will line up with the 60° mark.

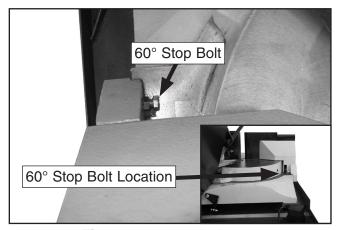


Figure 62. 60° swivel stop.

- 7. Move and the headstock to -45°.
- **8.** Read the scale. The bandsaw blade should be at -45°.
  - —If the headstock is not at -45°, adjust the stop (**Figure 63**) so it will line up with the -45° mark.

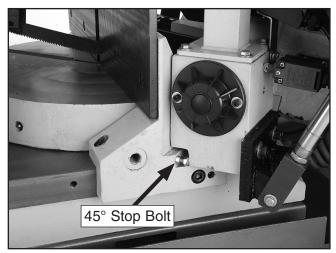


Figure 63. 45° swivel stop.

Go to Squaring Blade on Page 49 to make sure the cuts will be perpendicular to the table.



#### **Feed Stop**

It may be necessary to adjust the feed stop before making blade adjustments. The blade should never rest on or rub on any part of the vise assembly or table.

#### To adjust the feed stop bolt:

Adjust the feed stop bolt and jam nut (**Figure 64**), so the bandsaw blade teeth are just below the vise table surface when the cut is complete.

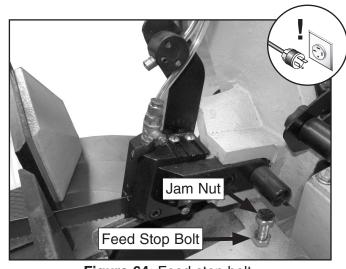


Figure 64. Feed stop bolt.

#### **Limit Switches**

The upper travel auto stop can be adjusted to limit saw bow travel to match the height of the workpiece. This speeds up repetitive cuts by eliminating unnecessary saw bow travel.

The lower limit switch should only be adjusted if the blade is not passing entirely through the workpiece or is cutting into the vise table.

## To set the upper travel auto stop and lower limit switch:

- Raise the saw bow to the highest level required to provide adequate clearance for your workpiece.
- 2. DISCONNECT BANDSAW FROM POWER!

3. Loosen the auto stop knob, adjust the position of the auto stop so it depresses the upper limit switch button, then re-tighten the auto stop knob. The saw bow will now automatically stop when raised to this level (Figure 65).

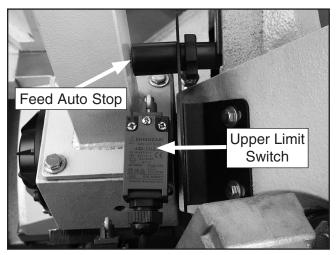


Figure 65. Feed auto stop.

- Connect the machine to power and lower the saw bow until it contacts the feed stop bolt (Figure 64).
- 5. DISCONNECT BANDSAW FROM POWER!
- Adjust the lower limit switch so that the button is depressed against the saw bow pivot base (Figure 66).

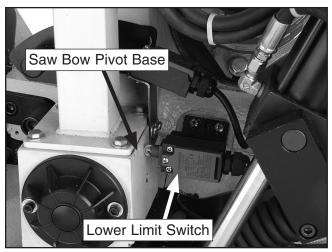


Figure 66. Limit switch.

 Connect the machine to power and test the limit stops. If they do not stop the motion of the saw bow at the positions desired, repeat Steps 1–6, fine tuning as necessary.



## **SECTION 8: WIRING**

## **AWARNING**

## **Electrical Safety Instructions**

- 1. PRINTED INFORMATION. The electrical information included in this section is current at the time of printing. However, in the spirit of improvement, we may make changes to the electrical system of future machines. Study the photos and diagrams in this section carefully. If you notice differences between your machine and these diagrams, call Technical Support at (570) 546-9663 for assistance.
- 2. SHOCK HAZARD. Disconnect power from the machine before servicing electrical components. Touching electrified parts will result in personal injury including but not limited to severe burns, electrocution, or death.
- GROUNDED CIRCUIT. Electrocution or fire could result if the machine is not grounded and installed in compliance with electrical codes. Compliance MUST be verified by a qualified electrician.

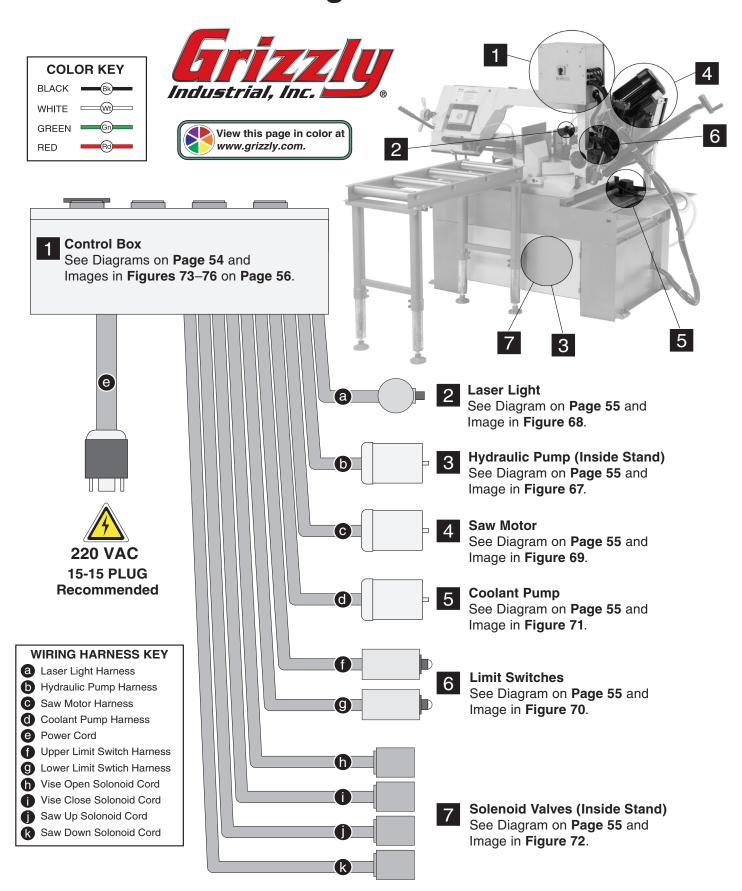
- 4. CIRCUIT REQUIREMENTS. You MUST follow the CIRCUIT REQUIREMENTS section on Page 11. If you are unsure about the wiring codes in your area or you plan to connect your machine to a shared circuit, consult a qualified electrician.
- 5. MOTOR WIRING. The motor wiring shown in these diagrams are current at the time of printing, but it may not match your machine. Always use the wiring diagram inside the motor junction box.
- 6. **EXPERIENCING DIFFICULTIES.** If at any time you are experiencing difficulties understanding the information included in this section, contact our Technical Support at (570) 546-9663.

#### **NOTICE**

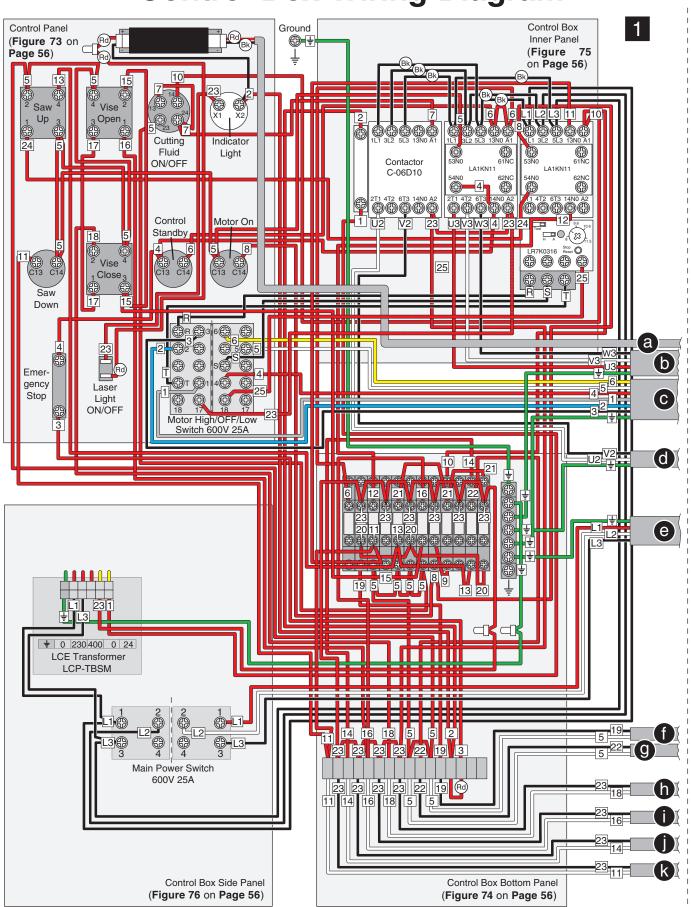
The photos and diagrams included in this section are best viewed in color. You can view these pages in color at www.grizzly.com.



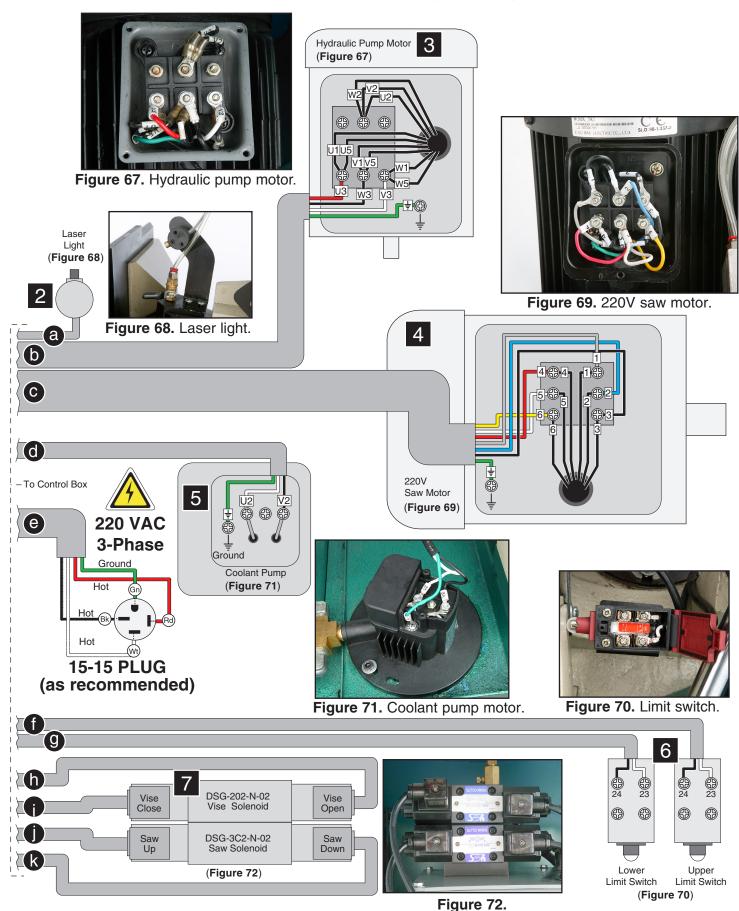
## Wiring Overview



## **Control Box Wiring Diagram**



## **Components Wiring Diagram**



## **Control Box Electrical Components**

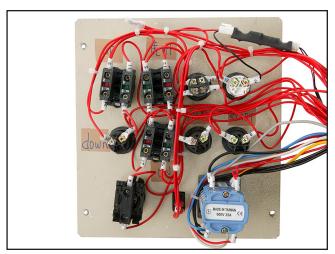


Figure 73. Control panel wiring.

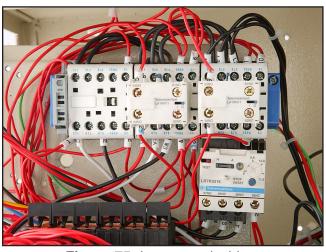


Figure 75. Inner panel wiring.

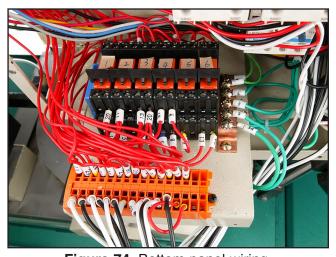


Figure 74. Bottom panel wiring.

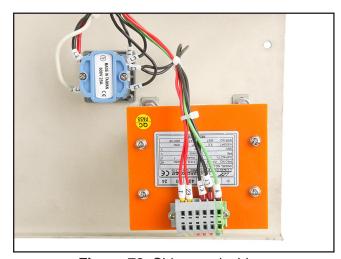
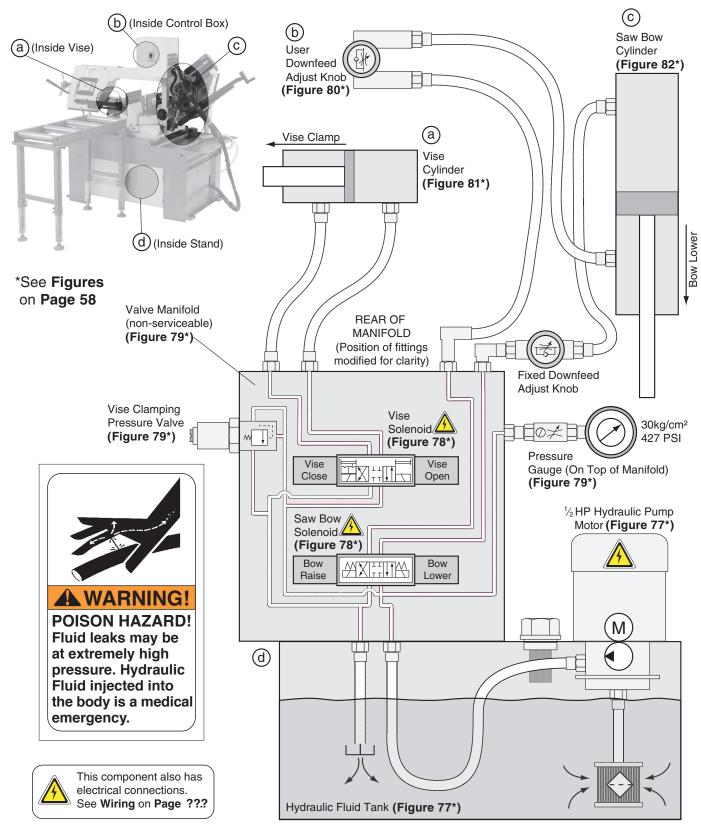


Figure 76. Side panel wiring.

# **SECTION 9: Hydraulics**

## **Hydraulic System Diagram**





# **Hydraulic Components**

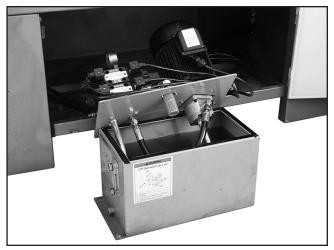


Figure 77. Hydraulic fluid tank.

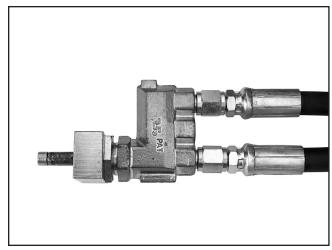


Figure 80. Downfeed adjust knob.



Figure 78. Solenoids.



Figure 81. Vise cylinder.

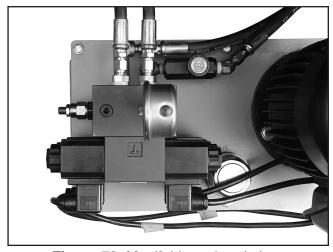


Figure 79. Manifold overhead view.

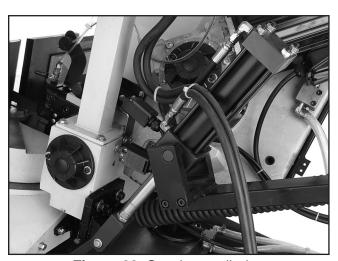
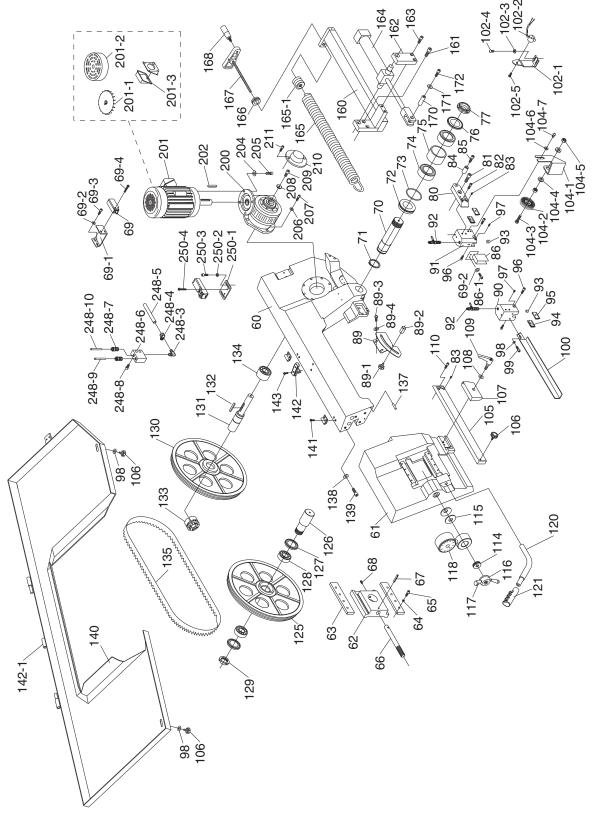


Figure 82. Saw bow cylinder.



# **SECTION 10: PARTS**

## **Main Parts Breakdown**



## **Main Parts List**

| REF   | PART#      | DESCRIPTION                |
|-------|------------|----------------------------|
| 60    | P0664060   | DRIVE WHEEL FRAME          |
| 61    | P0664061   | IDLER WHEEL FRAME          |
| 62    | P0664062   | ANCHOR BLOCK               |
| 63    | P0664063   | GIB                        |
| 64    | PLW04M     | LOCK WASHER 8MM            |
| 65    | PSB31M     | CAP SCREW M8-1.25 X 25     |
| 66    | P0664066   | BLADE TENSION BAR          |
| 67    | PRP58M     | ROLL PIN 6 X 45            |
| 68    | PSS09M     | SET SCREW M8-1.25 X 20     |
| 69    | P0664069   | LIMIT SWITCH               |
| 69-1  | P0664069-1 | SWITCH BRACKET             |
| 69-2  | PW02M      | FLAT WASHER 5MM            |
| 69-3  | PS05M      | PHLP HD SCR M58 X 8        |
| 69-4  | PS51M      | PHLP HD SCR M47 X 30       |
| 70    | P0664070   | MAIN PIVOT SHAFT           |
| 71    | PR56M      | EXT RETAINING RING 45MM    |
| 72    | P0664072   | BEARING SPACER             |
| 73    | PORG070    | O-RING 69.4 X 3.1 G70      |
| 74    | P0664074   | BALL BEARING 32009J        |
| 75    | P0664075   | MAIN PIVOT SPACER          |
| 76    | P0664076   | DUST SHIELD                |
| 77    | P0664077   | SPECIAL NUT M45-1.5        |
| 80    | P0664080   | BLADE GUIDE BLOCK          |
| 81    | PSB36M     | CAP SCREW M12-1.75 X 25    |
| 82    | PSB13M     | CAP SCREW M8-1.25 X 30     |
| 83    | PSS64M     | SET SCREW M6-1 X 15        |
| 84    | P0664084   | RELEASE BLOCK              |
| 85    | PSB63M     | CAP SCREW M12-1.75 X 60    |
| 86    | P0664086   | BLADE GUARD REAR           |
| 86-1  | P0664086-1 | BUTTON HD CAP SCR M58 X 12 |
| 87    | PW03M      | FLAT WASHER 6MM            |
| 87-1  | PSB28M     | CAP SCREW M6-1 X 15        |
| 89    | P0664089   | UPPER STOP BRACKET         |
| 89-1  | P0664089-1 | STOP KNOB                  |
| 89-2  | P0664089-2 | STOP BLOCK                 |
| 89-3  | PB29M      | HEX BOLT M6-1 X 30         |
| 89-4  | PW03M      | FLAT WASHER 6MM            |
| 90    | P0664090   | BLADE GUIDE UPPER          |
| 91    | P0664091   | BLADE GUIDE LOWER          |
| 92    | P0664092   | HOSE VALVE                 |
| 93    | P0664093   | BLADE GUIDE BACK           |
| 94    | P0664094   | BLADE GUIDE LEFT           |
| 95    | P0664095   | BLADE GUIDE RIGHT          |
| 96    | PSB11M     | CAP SCREW M8-1.25 X 16     |
| 97    | PSB28M     | CAP SCREW M6-1 X 15        |
| 98    | PW03M      | FLAT WASHER 6MM            |
| 99    | PSB28M     | CAP SCREW M6-1 X 15        |
| 100   | P0664100   | BLADE GUARD                |
| 102-1 | P0664102-1 | BRACKET                    |
| 102-2 | P0664102-2 | LASER LIGHT                |
| 102-3 | PW02M      | FLAT WASHER 5MM            |
| 102-4 | PS05M      | PHLP HD SCR M58 X 8        |
|       |            |                            |

| REF   | PART #     | DESCRIPTION              |
|-------|------------|--------------------------|
| 104-1 | P0664104-1 | BRUSH SUPPORT            |
| 104-2 | P0664104-2 | BRUSH                    |
| 104-3 | PB29M      | HEX BOLT M6-1 X 30       |
| 104-4 | PW03M      | FLAT WASHER 6MM          |
|       | PN01M      | HEX NUT M6-1             |
| 104-6 | PW02M      | FLAT WASHER 5MM          |
| 104-7 | PS05M      | PHLP HD SCR M58 X 8      |
| 105   | P0664105   | BLADE ADJUST STICK       |
| 106   | P0664106   | KNOB M6-1 X 15           |
| 107   | P0664107   | FIX BLOCK                |
| 108   | PW06M      | FLAT WASHER 12MM         |
| 109   | P0664109   | HANDLE                   |
| 110   | PSB13M     | CAP SCREW M8-1.25 X 30   |
| 114   | P0664114   | BALL BEARING 51203       |
| 115   | P0664115   | SPECIAL WASHER           |
| 116   | P0664116   | BLADE TENSION WHEEL      |
| 117   | P0664117   | BLADE TENSION HANDLE     |
| 118   | P0664118   | BLADE TENSION SCALE      |
| 120   | P0664120   | CONNECTING TUBE          |
| 121   | P0664121   | HANDLE CAP               |
| 125   | P0664125   | IDLER WHEEL              |
| 126   | P0664126   | IDLER WHEEL SHAFT        |
| 127   | P0664127   | DUST COVER               |
| 128   | P0664128   | BALL BEARING 32007J      |
| 129   | P0664129   | SPECIAL NUT M35-1.5      |
| 130   | P0664130   | DRIVE WHEEL              |
| 131   | P0664131   | DRIVE GEAR SHAFT         |
| 132   | P0664132   | DRIVE GEAR KEY           |
| 133   | P0664133   | SHAFT BUSHING            |
| 134   | P0664134   | BALL BEARING 6307ZZ      |
| 135   | P0664135   | BLADE 4/6T VP HSS        |
| 137   | PRP08M     | ROLL PIN 6 X 30          |
| 138   | PLW05M     | LOCK WASHER 12MM         |
| 139   | PSB131M    | CAP SCREW M12-1.75 X 45  |
| 140   | P0664140   | BI ADE COVER             |
| 141   | PS11M      | PHLP HD SCR M6-1 X 16    |
| 142   | P0664142   | BLADE COVER LATCH        |
| 142-1 | P0664142-1 | HOOK                     |
| 143   | PS19M      | PHLP HD SCR M58 X 6      |
| 160   | P0664160   | SPRING BRACKET           |
| 161   | PSB84M     | CAP SCREW M10-1.5 X 35   |
| 162   | P0664162   | SPRING BRACKET           |
| 163   | PSB31M     | CAP SCREW M8-1.25 X 25   |
| 164   | P0664164   | RAM ASSEMBLY             |
| 165   | P0664165   | EXTENSION SPRING         |
| 165-1 | P0664165-1 | BUSHING                  |
| 166   | P0664166   | BEARING                  |
| 167   | P0664167   | SPRING TENSION LEADSCREW |
| 168   | P0664168   | SPRING TENSION KNOB      |
| 170   | P0664170   | RAM PIN                  |
| 171   | PW01M      | FLAT WASHER 8MM          |
| 172   | PSB100M    | CAP SCREW M8-1.25 X 15   |
| 200   | P0664200   | GEAR BOX                 |
| 200   | 1 0007200  | GEAR BOX                 |

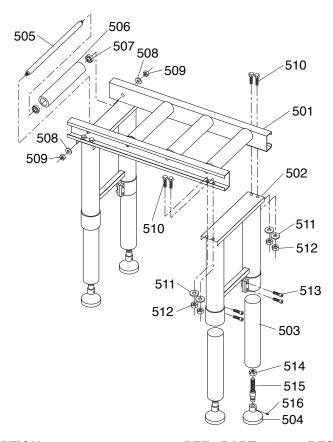


## **Main Parts List (Continued)**

| REF   | PART#      | DESCRIPTION            |
|-------|------------|------------------------|
| 201   | P0664201   | MOTOR 2.5 HP 220V 3-PH |
| 201-1 | P0664201-1 | SAW MOTOR FAN          |
| 201-2 | P0664201-2 | SAW MOTOR FAN COVER    |
| 201-3 | P0664201-3 | SAW MOTOR JUNCTION BOX |
| 202   | P0664202   | KEY 8 X 7 X 40         |
| 204   | PLW04M     | LOCK WASHER 8MM        |
| 205   | PSB31M     | CAP SCREW M8-1.25 X 25 |
| 206   | PW04M      | FLAT WASHER 10MM       |
| 207   | PSB64M     | CAP SCREW M10-1.5 X 25 |
| 208   | P0664208   | DRIVE SHAFT WASHER     |
| 209   | PSB61M     | CAP SCREW M10-1.5 X 20 |
| 210   | P0664210   | REDUCER COVER          |
| 211   | PSB100M    | CAP SCREW M8-1.25 X 15 |

| REF    | PART #      | DESCRIPTION           |
|--------|-------------|-----------------------|
| 248-3  | P0664248-3  | MICRO CONTROL BLOCK   |
| 248-4  | P0664248-4  | HOSE CLAMP            |
| 248-5  | P0664248-5  | NET TUBE              |
| 248-6  | P0664248-6  | 3 WAY VALVE           |
| 248-7  | P0664248-7  | HOSE FITTING          |
| 248-8  | PSB07M      | CAP SCREW M6-1 X 30   |
| 248-9  | P0664248-9  | PU TUBE SHORT         |
| 248-10 | P0664248-10 | PU TUBE LONG          |
| 250-1  | P0664250-1  | POWER CUTTING BRACKET |
| 250-2  | PLW03M      | LOCK WASHER 6MM       |
| 250-3  | PSB28M      | CAP SCREW M6-1 X 15   |
| 250-4  | PS51M       | PHLP HD SCR M47 X 30  |

#### **Roller Stand Parts Breakdown & List**



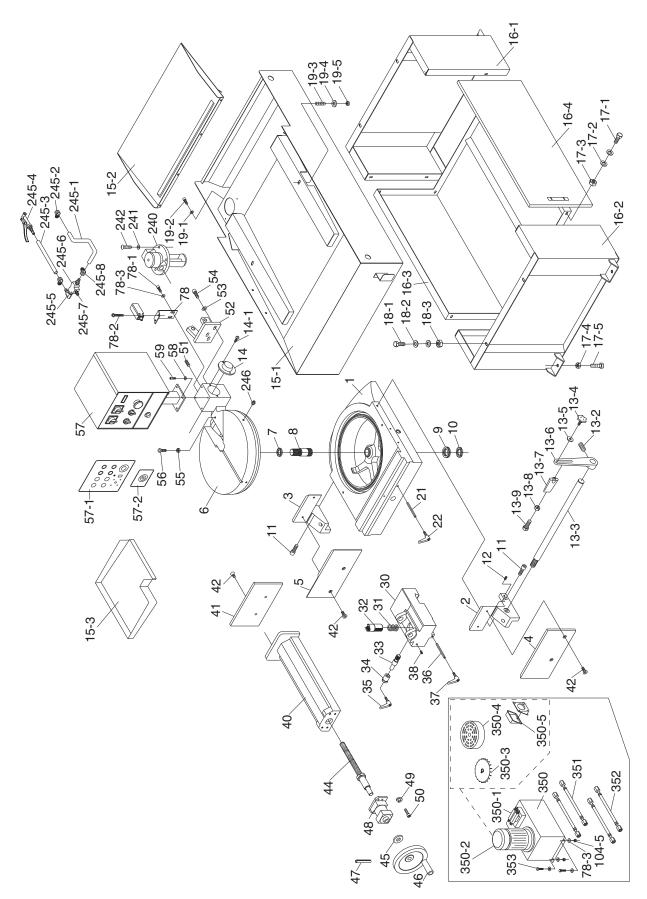
| 501 | G0664501 | TABLE RAIL          |
|-----|----------|---------------------|
| 502 | G0664502 | LEG ASSEMBLY        |
| 503 | G0664503 | LOWER LEG           |
| 504 | G0664504 | ADJUSTABLE FOOT     |
| 505 | G0664505 | ROLLER SHAFT        |
| 506 | G0664506 | ROLLER              |
| 507 | P6003    | BALL BEARING 6003ZZ |
| 508 | PW06M    | FLAT WASHER 12MM    |

#### REF PART # DESCRIPTION

| 509 | PN09M    | HEX NUT M12-1.75       |
|-----|----------|------------------------|
| 510 | PB03M    | HEX BOLT M8-1.25 X 16  |
| 511 | PW01M    | FLAT WASHER 8MM        |
| 512 | PN03M    | HEX NUT M8-1.25        |
| 513 | PSB11M   | CAP SCREW M8-1.25 X 16 |
| 514 | PN13M    | HEX NUT M16-2          |
| 515 | G0664515 | FOOT STUD              |
| 516 | PSS03M   | SET SCREW M6-1 X 8     |



## **Base Parts Breakdown**





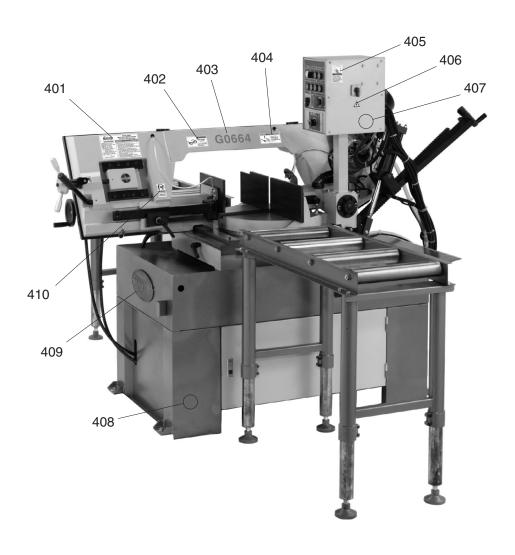
## **Base Breakdown**

| REF  | PART #     | DESCRIPTION              |
|------|------------|--------------------------|
| 1    | P0664001   | SAW SWIVEL BASE          |
| 2    | P0664002   | VISE BACK PLATE RIGHT    |
| 3    | P0664003   | VISE BACK PLATE LEFT     |
| 4    | P0664004   | VISE JAW RIGHT           |
| 5    | P0664005   | VISE JAW LEFT            |
| 6    | P0664006   | SAW SWIVEL               |
| 7    | P0664007   | SPECIAL NUT M30-1.5      |
| 8    | P0664008   | SHAFT                    |
| 9    | P0664009   | BALL BEARING 35 X 52 X 4 |
| 10   | P0664010   | SPECIAL NUT M35-1.5      |
| 11   | PSB36M     | CAP SCREW M12-1.75 X 25  |
| 12   | PSS77M     | SET SCREW M12-1.75 X 20  |
| 13-2 | PSS01M     | SET SCREW M6-1 X 10      |
| 13-3 | P0664013-3 | WORK STOP ROD            |
| 13-4 | P0664013-4 | LOCK KNOB                |
| 13-5 | PLW03M     | LOCK WASHER 6MM          |
| 13-6 | P0664013-6 | WORK STOP BRACKET        |
| 13-7 | P0664013-7 | WORK STOP                |
| 13-8 | PN02M      | HEX NUT M10-1.5          |
| 13-9 | PB32M      | HEX BOLT M10-1.5 X 25    |
| 14   | P0664014   | PIVOT BEARING COVER      |
| 14-1 | PSB28M     | CAP SCREW M6-1 X 15      |
| 15-1 | P0664015-1 | STAND                    |
| 15-2 | P0664015-2 | FLUID COLLECT PLATE      |
| 15-3 | P0664015-3 | COOLANT CATCH TRAY       |
| 16-1 | P0664016-1 | STAND LEG RIGHT          |
| 16-2 | P0664016-2 | STAND LEG LEFT           |
| 16-3 | P0664016-3 | STAND MIDDLE PANEL       |
| 16-4 | P0664016-4 | STAND FRONT PANEL        |
| 17-1 | PB09M      | HEX BOLT M8-1.25 X 20    |
| 17-2 | PW01M      | FLAT WASHER 8MM          |
| 17-3 | PN03M      | HEX NUT M8-1.25          |
| 17-4 | PN13M      | HEX NUT M16-2            |
| 17-5 | PSB122M    | CAP SCREW M16-2 X 50     |
| 18-1 | PSB14M     | CAP SCREW M8-1.25 X 20   |
| 18-2 | PW01M      | FLAT WASHER 8MM          |
| 18-3 | PN03M      | HEX NUT M8-1.25          |
| 19-1 | PW03M      | FLAT WASHER 6MM          |
| 19-2 | PSB28M     | CAP SCREW M6-1 X 15      |
| 19-3 | P0664019-3 | SET SCREW M10-1.5 X 40   |
| 19-4 | PW04M      | FLAT WASHER 10MM         |
| 19-5 | PN02M      | HEX NUT M10-1.5          |
| 21   | P0664021   | PIVOT LOCK SHAFT         |
| 22   | P0664022   | PIVOT LOCK HANDLE        |
| 30   | P0664030   | VISE TABLE               |
| 31   | P0664031   | COMPRESSION SPRING       |
| 32   | P0664032   | RACK SHAFT               |
| 33   | P0664033   | GEAR SHAFT               |
| 34   | P0664034   | SHAFT BUSHING            |
| 35   | P0664035   | HANDLE                   |
|      | •          |                          |

| REF   | PART #     | DESCRIPTION              |
|-------|------------|--------------------------|
| 36    | P0664036   | HANDLE SHAFT             |
| 37    | P0664037   | HANDLE                   |
| 38    | PSS06M     | SET SCREW M8-1.25 X 16   |
| 40    | P0664040   | VISE JAW BRACKET FRONT   |
| 41    | P0664041   | VISE PLATE               |
| 42    | PFH11M     | FLAT HD SCR M8-1.25 X 15 |
| 43    | PSS25M     | SET SCREW M6-1 X 20      |
| 44    | P0664044   | LEADSCREW                |
| 45    | PW08M      | FLAT WASHER 16MM         |
| 46    | P0664046   | HANDWHEEL                |
| 47    | PRP05M     | ROLL PIN 5 X 30          |
| 48    | P0664048   | CYLINDER                 |
| 49    | PW01M      | FLAT WASHER 8MM          |
| 50    | PSB13M     | CAP SCREW M8-1.25 X 30   |
| 51    | PSS06M     | SET SCREW M8-1.25 X 16   |
| 52    | P0664052   | ACCESSORY BRACKET        |
| 53    | PW04M      | FLAT WASHER 10MM         |
| 54    | PSB72M     | CAP SCREW M10-1.5 X 30   |
| 55    | PN09M      | HEX NUT M12-1.75         |
| 56    | PSB73M     | CAP SCREW M12-1.75 X 50  |
| 57    | P0664057   | CONTROL BOX ASSEMBLY     |
| 57-1  | P0664057-1 | CONTROL PANEL LABEL      |
| 57-2  | P0664057-2 | FEED SPEED LABEL         |
| 58    | PW01M      | FLAT WASHER 8MM          |
| 59    | PSB31M     | CAP SCREW M8-1.25 X 25   |
| 78    | P0664078   | BRACKET                  |
| 78-1  | PSB28M     | CAP SCREW M6-1 X 15      |
| 78-2  | PS51M      | PHLP HD SCR M47 X 30     |
| 78-3  | PW03M      | FLAT WASHER 6MM          |
| 240   | P0664240   | COOLING PUMP ASSEMBLY    |
| 241   | PLW03M     | LOCK WASHER 6MM          |
| 242   | PSB28M     | CAP SCREW M6-1 X 15      |
| 245-1 | P0664245-1 | MACHINE FLUID HOSE       |
|       | P0664245-2 | HOSE CLAMP               |
|       | P0664245-3 | SPRAYER FLUID HOSE       |
| 245-4 | P0664245-4 | SPRAYER                  |
| 245-5 | P0664245-5 | ELBOW                    |
| 245-6 | P0664245-6 | MANIFOLD                 |
| 245-7 | P0664245-7 | CONNECTOR                |
| 245-8 | P0664245-8 | HOSE CLAMP               |
| 246   | P0664246   | GREASE FITTING           |
| 350   | P0664350   | HYDRAULIC UNIT           |
| 350-1 | P0664350-1 | HYDRAULIC VALVE SET      |
| 350-2 | P0664350-2 | MOTOR 1/2 HP 220V 3-PH   |
| 350-3 | P0664350-3 | PUMP MOTOR FAN           |
| 350-4 | P0664350-4 | PUMP MOTOR FAN COVER     |
| 350-5 | P0664350-5 | PUMP MOTOR JUNCTION BOX  |
| 351   | P0664351   | HOSE W/TUBE FITTING      |
| 352   | P0664352   | HOSE W/TUBE FITTING      |
| 353   | P0664353   | HEX BOLT M6-1 X 20       |
| 555   | 1 000+000  | TIEN DOLT WO TA ZO       |



#### **Labels Breakdown and List**



| REF | PART #     | DESCRIPTION               |
|-----|------------|---------------------------|
| 401 | P0664401   | MACHINE ID LABEL          |
| 402 | P0664402   | WEAR SAFETY GLASSES LABEL |
| 403 | P0664403   | MODEL NUMBER LABEL        |
| 404 | P0664404   | DISCONNECT LABEL          |
| 405 | PLABEL-12A | READ MANUAL LABEL         |

| REF | PART#     | DESCRIPTION                  |
|-----|-----------|------------------------------|
| 406 | PLABEL-14 | ELECTRICITY LABEL            |
| 407 | PPAINT-11 | GRIZZLY PUTTY TOUCH UP PAINT |
| 408 | PPAINT-1  | GRIZZLY GREEN TOUCH UP PAINT |
| 409 | G8589     | GRIZZLY NAMEPLATE-LARGE      |
| 410 | P0664410  | BLADE DANGER LABEL           |

## **AWARNING**

Safety labels warn about machine hazards and ways to prevent injury. The owner of this machine MUST maintain the original location and readability of the labels on the machine. If any label is removed or becomes unreadable, REPLACE that label before using the machine again. Contact Grizzly at (800) 523-4777 or www.grizzly.com to order new labels.



# CUT ALONG DOTTED LINE

#### Grizzly WARRANTY CARD

|     |  | 0  |  |                      |  |  |
|-----|--|--|--|----------------------|--|--|
|     |  | _ State  |  |                      |  |  |
|     |  |  |  | Invoice #            |  |  |
| Mo  | del #  | _ Order #  | Serial #   | Serial #             |  |  |
|     |  | n a voluntary basis. It will be used for r<br>urse, all information is strictly confi<br>o   |  | elp us develop       |  |  |
| ••  | Advertisement Card Deck  | Friend Website   | Catalog Other:   |                      |  |  |
| 2.  | Which of the following maga  | azines do you subscribe to?  |  |                      |  |  |
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| 3.  | What is your annual househ \$20,000-\$29,000 \$50,000-\$59,000   | old income?<br>\$30,000-\$39,000<br>\$60,000-\$69,000  | \$40,000-\$49<br>\$70,000+   | ,000                 |  |  |
| 4.  | What is your age group? 20-29 50-59  | 30-39<br>60-69   | 40-49<br>70+   |                      |  |  |
| 5.  | How long have you been a v   |  | ears20+  | Years                |  |  |
| 6.  | How many of your machines  | s or tools are Grizzly?<br>3-56-9  | 10+  |                      |  |  |
| 7.  | Do you think your machine r  | represents a good value?   | _Yes   | No                   |  |  |
| 8.  | Would you recommend Griz   | zly Industrial to a friend?  | _Yes   | No                   |  |  |
| 9.  | Would you allow us to use y <b>Note:</b> We never use names  | our name as a reference for Grizzly more than 3 times.   | y customers in your are<br>_Yes  | ea?<br>No            |  |  |
| 10. | Comments:  |  |  |                      |  |  |
|     |  |  |  |                      |  |  |
|     |  |  |  |                      |  |  |
|     |  |  |  |                      |  |  |

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## **WARRANTY AND RETURNS**

Grizzly Industrial, Inc. warrants every product it sells for a period of **1 year** to the original purchaser from the date of purchase. This warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence, accidents, repairs or alterations or lack of maintenance. This is Grizzly's sole written warranty and any and all warranties that may be implied by law, including any merchantability or fitness, for any particular purpose, are hereby limited to the duration of this written warranty. We do not warrant or represent that the merchandise complies with the provisions of any law or acts unless the manufacturer so warrants. In no event shall Grizzly's liability under this warranty exceed the purchase price paid for the product and any legal actions brought against Grizzly shall be tried in the State of Washington, County of Whatcom.

We shall in no event be liable for death, injuries to persons or property or for incidental, contingent, special, or consequential damages arising from the use of our products.

To take advantage of this warranty, contact us by mail or phone and give us all the details. We will then issue you a "Return Number," which must be clearly posted on the outside as well as the inside of the carton. We will not accept any item back without this number. Proof of purchase must accompany the merchandise.

The manufacturers reserve the right to change specifications at any time because they constantly strive to achieve better quality equipment. We make every effort to ensure that our products meet high quality and durability standards and we hope you never need to use this warranty.

Please feel free to write or call us if you have any questions about the machine or the manual.

Thank you again for your business and continued support. We hope to serve you again soon.



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